



Borough of Cambridge.

REPORT

of the

Medical Officer of Health

and

School Medical Officer

and of

The Borough Dentist

For the Year 1921.

ANDREW J. LAIRD, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH
AND SCHOOL MEDICAL OFFICER.

W. BAIRD GRANDISON, L.D.S., R.C.S.

BOROUGH DENTIST.

BOROUGH OF CAMBRIDGE

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of the
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HEALTH REPORT.

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Borough of Cambridge.

I. GENERAL STATISTICS.

Area (acres)	...	...	...	...	...	5,457
Population (1921 census)	...	...	...	...	...	59,262
Number of inhabited houses (1921)	...	...	...	...	...	14,550
Rateable Value	...	...	...	...	...	£398,350
Sum represented by a penny rate	...	...	...	...	...	£1,570

2. EXTRACTS FROM VITAL STATISTICS OF THE YEAR 1921.

			Total.	M.	F.			
Births	{	Legitimate ...	899	460	439	}	Birth Rate	... 16·5
		Illegitimate ...	40	26	14			
Deaths	...	...	638	313	325		Death rate	... 10·7
Number of women dying in, or in consequence						{	from sepsis	... 1
of, childbirth ...								„ other causes

Deaths of Infants under one year of age per 1,000 births:—

Legitimate	55·6	Illegitimate	50	Total	55
Deaths from Measles (all ages)	...	...	...	...	nil
„ Whooping Cough (all ages)	...	...	...	...	nil
„ Diarrhoea (under 2 years of age)	...	...	...	...	6

PUBLIC HEALTH DEPARTMENT,
GUILDHALL, CAMBRIDGE.

March 31st, 1922.

*To the Mayor, Aldermen, and Councillors of the
Borough of Cambridge.*

MR. MAYOR, LADIES AND GENTLEMEN,

I have the honour to submit to you my Annual Reports for the year 1921. They are somewhat shorter than before, chiefly as the result of suggestions made by the Ministry of Health in circular 269 of the 28th December, 1920.

It is proposed by the Ministry that in *ordinary* annual reports details which do not vary from year to year should be omitted, and that every fifth year an annual report of a full and detailed character (to be called a *survey* report) should be submitted. The present reports are to be regarded as *ordinary* reports, and contain a certain minimum of information asked for by the Ministry of Health in the circular referred to.

It will be seen that smallpox made its appearance in 1921, but was happily limited to a single case. There is an ever present threat of another outbreak so long as cases persist in the Country, and vaccination continues to be so generally neglected. The Health Committee is considering the question of substituting a building of a more or less permanent character for the tents which were used at one time at the smallpox hospital, and are now worn out.

Early in the year the dental work was resumed, and the dental treatment of children below school age and expectant and nursing mothers was commenced.

Your obedient Servant,
ANDW. J. LAIRD.

Annual Report of the Medical Officer of Health for the year 1921.

POPULATION.

Census 1911, 55,812.

Census 1921, 59,262.

The Census was taken on June 19th instead of April 24th as was originally intended, and the figures show an increase during the ten years of 3,450, the increase between 1901 and 1911 having been 3,591.

The figures for males and females at the Census in 1911 and 1921 show that the proportions remain practically the same.

		1911.	1921.
Males	...	25,311	27,139
Females	...	30,501	32,123

No further details are yet available, nothing beyond a preliminary report having yet been published.

MARRIAGES.

The number of marriages and the marriage-rates since 1912 are :—

					Rate per 1000 of the population.		
					Cambridge.	England & Wales.	
1913	...	302	...	...	14·9	...	15·5
1914	...	384	...	...	13·4	...	15·9
1915	...	527	...	...	18·4	...	19·3
1916	...	360	...	...	12·6	...	15·4
1917	...	361	...	...	12·3	...	13·8
1918	...	414	...	...	14·2	...	15·3
1919	...	497	...	...	16·4	...	19·7
1920	...	563	...	...	18·7	...	20·1
1921	...	430	...	...	14·5	...	...

There is some reason for believing that the number of marriages would have been higher had houses been available. It has been noted that there are many young newly-married people living at home with their parents and in lodgings. In one family two recently married daughters were living with their parents.

BIRTHS.

The number of births registered each year was as follows :—

					No. of Males born		
					Birth-rate.	per 100 Females	
1913	...	552	...	557	19·4	...	99·1
1914	...	485	...	511	17·4	...	94·9
1915	...	491	...	506	17·4	...	97·0
1916	...	514	...	477	17·4	...	107·7
1917	...	378	...	363	12·6	...	104·1
1918	...	422	...	399	14·1	...	105·7
1919	...	463	...	431	14·8	...	107·4
1920	...	616	...	603	20·2	...	102·1
1921	...	486	...	453	16·5	...	107·2

The birth-rate in 1921 for England and Wales was 22·4, which is the lowest recorded for the country, except in the war years 1915–1919.

The number of illegitimate births registered was :—

		Illegitimate Births.		Percentage of total Births.
1913	...	45	...	4·0
1914	...	72	...	7·2
1915	...	51	...	5·1
1916	...	72	...	7·2
1917	...	57	...	7·7
1918	...	93	...	7·6
1919	...	77	...	8·6
1920	...	63	...	5·1
1921	...	40	...	4·0

Notification of Births.—The number of births registered and notified was as follows :—

	Registered.	Notified.	Percentage Notified.	Notified by		
				Doctor.	Midwife.	Parent.
1913	1109	965	87·0	280	436	249
1914	996	921	92·4	240	454	227
1915	997	909	91·1	209	443	257
1916	986	928	94·1	188	450	280
1917	741	701	94·6	165	383	153
1918	821	762	92·8	160	456	146
1919	894	876	97·9	179	501	196
1920	1219	1142	93·6	219	699	224
1921	939	939	100	165	532	242

Thirty-nine still-births were notified, being 3·4 per cent. of the total number notified. The proportion in 1920 was 3·2.

Natural Increase of the Population.—The following figures show the natural increase or the excess of births over deaths :—

	Total Births.		Total Deaths.		Natural Increase.		
1913	...	1109	...	...	680	...	429
1914	...	996	...	...	728	...	268
1915	...	997	...	...	888	...	109
1916	...	986	...	...	680	...	306
1917	...	741	...	...	634	...	107
1918	...	821	...	...	770	...	51
1919	...	894	...	...	646	...	248
1920	...	1219	...	...	568	...	651
1921	...	939	...	...	638	...	301

DEATHS.

The number of deaths of Cambridge people occurring in Cambridge and elsewhere in 1921 was 638, and the death-rate per 1,000 was 10·7.

The rates from 1913 were :—1913, 11·9 ; 1914, 12·7 ; 1915, 16·4 ; 1916, 12·5 ; 1917, 12·1 ; 1918, 14·8 ; 1919, 11·1 ; 1920, 9·4.

The death-rate in 1921 for England and Wales was 12·1, and is the lowest on record for the country as a whole.

MINISTRY OF HEALTH.

TABLE I.

Vital Statistics of Whole District during 1921 and previous Years.

YEAR	Population estimated to Middle of each year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFER- ABLE DEATHS.†		NETT DEATHS BELONG- ING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		*Number.	Rate.	of Non-residents regis- tered in the District.	of Residents not regis- tered in the district.	UNDER ONE YEAR OF AGE.		AT ALL AGES.	
			Number.	Rate.					*Number.	Rate per 1,000 nett Births.	*Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1915	54029	996	997	17·4	955	17·6	122	55	88	88	888	16·4
1916	52236	986	991	17·4	753	13·9	104	31	72	72	680	12·5
1917	†52282 58280	741	741	12·6	725	13·8	124	33	53	71	634	12·1
1918	†51981 58243	821	821	14·1	822	15·7	110	58	54	65	770	14·8
1919	†57849 60261	897	894	14·8	740	12·7	130	36	44	49	646	11·1
1920	60154	1239	1219	20·2	681	11·3	145	32	50	41	568	9·4
1921	59262	1039	939	16·5	768	13·1	159	29	52	55	638	10·7

NOTES.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates.

†Population for calculating Death rate.

|| " " " " Birth "

* In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the district.

In Column 12 are entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

‡“ Transferable Deaths ” are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.

MINISTRY OF HEALTH.

TABLE III.

Causes of and ages at Death during the Year 1921. See Notes on next page.

Causes of Death. I	Nett Deaths at the subjoined Ages of "Residents" whether occurring within or without the District (a).									Deaths in or be- longing to local- ities (at all ages).				Total Deaths of "Resi- dents" in Institutions in the District. II
	All ages. 2	Under 1. 3	1 and under 2. 4	2 and under 5. 5	5 and under 15. 6	15 and under 25. 7	25 and under 45. 8	45 and under 65. 9	65 and upwards. 10	St. Andrew the Less 11	St. Andrew the Great. 12	Chesterton. 13	Cambridge without. 14	
All causes { Certified (c) ...	638	52	5	6	12	29	67	148	319	367	97	130	44	115
Uncertified ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever... ..	1	...	...	...	...	1	...	...	...	1	...	...	...	1
Whooping Cough ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup ...	3	...	1	...	1	1	...	...	...	2	1	...	...	2
Influenza	8	...	...	...	...	...	1	2	5	4	3	...	1	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuber- culosis)	46	...	...	...	1	10	19	9	7	33	5	6	2	9
Tuberculous Meningitis ...	1	...	...	...	...	...	1	...	...	1	...	...	...	1
Other tuberculous diseases ...	8	1	1	1	...	4	1	...	...	5	...	1	2	2
Cancer, malignant disease ...	87	...	...	...	...	...	6	42	39	50	12	19	6	11
Rheumatic Fever	5	...	...	...	1	...	1	1	2	1	1	3	...	...
Meningitis (d)	6	1	...	2	...	...	2	1	...	5	1	...	...	...
Organic Heart Disease ...	86	1	...	...	1	1	4	26	53	34	20	24	7	10
Bronchitis	36	2	...	...	...	...	...	7	27	21	5	9	1	6
Pneumonia (all forms) ...	42	9	3	2	2	1	5	6	14	23	4	14	1	6
Other diseases of Respira- tory organs	9	1	...	...	...	1	...	4	3	5	4	...	...	...
Diarrhoea and Enteritis (e) ...	10	6	...	...	1	...	...	...	3	8	2	...	...	...
Appendicitis and Typhlitis ...	6	...	...	...	...	2	2	2	...	2	...	1	3	2
Cirrhosis of Liver	3	...	...	...	...	...	1	1	1	2	1	...	...	1
Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease	17	...	...	...	...	...	2	5	10	7	3	5	2	4
Puerperal Septicaemia etc ...	1	...	...	...	...	...	1	...	...	1	...	...	...	1
Other Accidents and Diseases of Pregnancy and Partu- rition	2	...	...	...	...	...	2	...	...	1	1	...	...	1
Congenital Debility and Malformation, including Premature Birth	24	23	...	...	...	...	1	...	...	21	1	2	...	4
Violent Deaths, excluding Suicide	6	...	...	...	2	1	...	1	2	2	3	1	1	...
Suicide	6	...	...	...	...	1	...	4	1	2	2	2	...	...
Other Defined Diseases ...	225	8	...	1	3	6	18	37	152	136	28	43	18	54
Diseases ill-defined or unknown	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	638	52	5	6	12	29	67	148	319	367	97	130	44	115

NOTES TO TABLE.

The classification and numbering of Causes of Death are those of the "Short List" on page XXV. of the Manual of the International List of Causes of Death, which has been consulted and followed in all cases of doubt.

- (a) All "Transferable Deaths" of residents, *i.e.*, of persons resident in the District who have died outside it, are *included* with the other deaths in columns 2-10. Transferable deaths of non-residents, *i.e.*, of persons resident in England and Wales who have died in the District, are in like manner *excluded* from these columns. For the precise meaning of the term "transferable" deaths *see* footnote to Table I.
- (b) All deaths occurring in Institutions for the sick and infirm situated within the district, of residents are entered in the last column of Table III.
- (c) All deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are regarded as "Uncertified."
- (d) Exclusive of "Tuberculosis Meningitis" (10), but inclusive of Cerebro-Spinal Meningitis.
- (e) Title 19 has been used for deaths from Diarrhoea and Enteritis at all ages. (In the "Short List" deaths from Diarrhoea and Enteritis under 2 years are included under Title 19; those at 2 years and over being placed under Title 28.)

N.B.—Deaths of soldiers and sailors occurring in hospitals and institutions in the district are excluded from the total number of deaths registered in the district, and such deaths are excluded from column 11 of Table III.

Deaths in Public Institutions.—The number of deaths in Public Institutions of Cambridge people in 1921 was 122, or 19 per cent. of the total deaths. The proportion in 1920 was 39.7 per cent.

Infant Mortality.—The number of deaths under one year of age was 52, or 52 per 1,000 births.

	No. of Deaths.	Proportion of deaths per 1000 births.	Percentage of total deaths at all ages.	Infant Mortality rate, England and Wales.
1913	82	73	12.0	109
1914	78	78	10.7	105
1915	88	88	9.9	110
1916	72	72	10.5	91
1917	53	71	8.3	97
1918	54	65	7.0	97
1919	44	49	6.8	89
1920	50	41	8.8	80
1921	52	55	8.1	83

The causes of these deaths are shown in Table IV., and the causes for a number of years are shown below.

[illegible]

MINISTRY OF HEALTH.

TABLE IV.

INFANT MORTALITY, 1921.

Nett Deaths from stated causes at various Ages under 1 year of Age.

See Note (a).

CAUSES OF DEATH.				Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
All causes	Certified	...	...	14	4	5	2	25	9	6	5	7	52
	Uncertified	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis (b)	...	...	...	...	...	...	...	...	...	...	...	1	1
	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	1	...	...	1	...	...	...	...	1
	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	1	...	...	...	1	...	...	1	...	2
	...	...	...	...	...	...	...	...	...	...	...	...	...
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	1	1	...	1	...	...	2
Bronchitis	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	1	1	3	1	3	1	9
Pneumonia (all forms)	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	1	...	...	1	...	2	...	...	3
Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	1	...	2	3
Enteritis	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastritis	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	1	...	1	...	...	...	...	1
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	1	...	...	...	1
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	1	...	...	...	1	...	...	...	...	1
	...	...	...	1	...	...	...	1	...	...	...	...	1
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	1	...	...	...	1	...	1	...	...	2
Congenital Malformations (c)	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	8	...	3	...	11	...	...	...	...	11
Premature Birth	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility and Marasmus	...	...	...	2	2	1	...	5	4	...	...	...	9
	...	...	...	...	...	...	...	...	1	1	1	3	5
Other causes	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS				14	4	5	2	25	9	6	5	7	52
Nett Births in the year				legitimate .. 899	Nett Deaths in the year of				legitimate infants 50				
				illegitimate ... 40					illegitimate infants 2				

- (a) The total in the last column of Table IV. is equal the total in column 10 of Table I., and in column 3 of Table III.
- (b) Under Abdominal Tuberculosis are included deaths from Tuberculous Peritonitis, and Enteritis and from Tabes Mesenterica.
- (c) The total deaths from Congenital Malformations Premature Birth, Atrophy, Debility and Marasmus, equal the total in Table III, under the heading Congenital Debility and Malformation including Premature Birth.
Want of Breast Milk is also included under Atrophy and Debility.
- (d) For references to meaning of any other headings, see notes attached to Table III

Deaths of Children 1 to 5 years of Age.—The total was 13, or 2.0 per cent. of the total deaths at all ages.

The chief causes of death at this period of life were as follows :—

Infectious Diseases—	1913	1914	1915	1916	1917	1918	1919	1920	1921
Scarlet Fever,									
Diphtheria, Measles,									
Whooping Cough	17	9	50	12	3	9	2	2	1
Tuberculosis—									
Pulmonary ...	2	—	3	1	—	4	—	2	1
Other forms ...	2	1	2	2	3	—	7	2	1
Bronchitis and									
Pneumonia ...	2	7	19	2	4	12	8	1	5
Diarrhoea and									
Enteritis ...	1	1	1	—	—	—	2	—	1
Convulsions ...	1	—	1	—	—	1	—	—	—
Meningitis ...	—	—	—	1	2	3	—	2	2
Rickets ...	1	—	1	—	1	—	—	1	—
All other Diseases ...	6	6	3	8	5	9	4	2	2
	32	24	80	26	18	38	23	12	13

NOTIFIABLE DISEASES DURING THE YEAR.

The following table gives the number and age distribution of the diseases notified, and the age distribution of the deaths from Tuberculosis :—

Age distribution of the cases notified :—

	Under 1	1—2	2—3	3—4	4—5	5—10	10—15	15—20	20—35	35—45	45—65 and over.	Total.
Diphtheria ...	—	—	2	2	3	7	11	2	1	1	—	29
Scarlet Fever —	—	2	—	2	5	32	17	6	10	—	—	74
Enteric Fever...	—	—	—	—	—	1	1	3	1	—	1	7
Puerperal Fever	—	—	—	—	—	—	—	—	2	—	—	2
Pneumonia ...	—	—	—	1	—	1	1	—	4	3	2	13
Erysipelas ...	—	1	—	—	—	—	1	2	2	3	1	10
Encephalitis												
Lethargica ...	—	—	—	—	—	—	—	1	—	—	—	1
Tuberculosis												
Pulmonary M	—	—	—	—	—	14	8	1	17	8	8	56
F	—	—	—	—	—	11	6	2	15	3	4	42
Total ...	—	—	—	—	—	25	14	3	32	11	12	98
Non-Pulmonary M	—	—	—	—	1	7	2	—	—	1	1	12
F	—	1	—	—	—	2	2	1	—	—	1	8
Total ...	—	1	—	—	1	9	4	1	—	1	2	20

Age distribution of Deaths :—

	Under 1	1—2	2—3	3—4	4—5	5—10	10—15	15—20	20—35	35—45	45—65 and over.	Total.
Tuberculosis												
Pulmonary M	—	—	—	—	—	—	1	2	6	2	5	20
F	—	—	—	—	—	—	—	3	11	5	4	26
Non-Pulmonary M	1	1	2	—	—	—	—	1	1	—	—	6
F	—	—	—	—	—	—	—	3	—	—	—	3

OPHTHALMIA NEONATORUM.

Cases.			Vision un- impaired.	Vision impaired.	Total Blindness.	Deaths.
Notified.	Treated.					
	At home.	In hospital.				
4	—	4	3	I	—	—

The ages of those who died from diphtheria were 16 years, 9 years, and 23 months ; from scarlet fever 15 years.

There were no deaths from either measles or whooping cough ; while from diarrhoea, in spite of the long continued drought, there were only six infant deaths during the summer and autumn, and none between the ages one to five years.

A case of small-pox was notified in August. The patient sickened twelve days after a day's trip to London. No local source of infection could be traced. The patient was removed to the Coldham Lane Hospital, and his contacts vaccinated or re-vaccinated. Eighteen of his more immediate contacts were accommodated in an empty block of the Infectious Diseases Hospital.

The case of encephalitis lethargica notified was a patient in Addenbrooke's Hospital admitted from Willingham. One of the cases notified at the end of 1920 died on January 4, 1921.

Among school children the only disease which was unusually prevalent was mumps. The total number notified by school teachers was 1593.

NURSING ARRANGEMENTS, HOSPITALS, AND OTHER INSTITUTIONS AVAILABLE FOR THE DISTRICT.

(a.) FOR GENERAL PURPOSES.

Addenbrooke's Hospital ;
Ely Diocesan Home, Bateman Street ;
Evelyn Nursing Home ;
And various other Private Nursing Homes for General and Maternity Cases.

For Home Nursing there are the District Nurses, and the private nurses from the Fitzwilliam, Granta, and other private nurses' homes in the Borough.

The only general hospital (apart from the Poor Law Infirmary) is the Addenbrooke's Hospital, with a total of 190 beds.

The arrangements first made with the Hospital Committee in 1918 now provide for the admission of difficult cases of labour, normal confinement cases where the home conditions are prejudicial, puerperal fever, children up to five years of age with non-infectious ailments, with the addition of ophthalmia neonatorum and epidemic diarrhoea.

The charges made for maintenance and treatment are 7/- per day for each adult, together with the surgeon's fee according to the scale under the Midwives Act, and 5/- per day for each child.

Special ante-natal cases may also be sent to the Out-patient Department by medical practitioners and midwives, the fee charged

being 10/6 for consultation and report, and 2/6 for each subsequent attendance.

During the year ten women and three children were treated in the Hospital under the arrangements made, and seven attended for antenatal consultations only.

The Ely Diocesan Home, Bateman Street, opened in 1920, has accommodation for twelve unmarried mothers with their babies, and receives cases from the Borough. The Town Council makes no fixed contribution to the Home.

(b.) FOR INFECTIOUS DISEASES.

The Infectious Diseases Hospital, Mill Road, with 62 beds, and the Coldham Lane Hospital for Small-pox, with 8 permanent beds, and means for rapid extension amply provide for the Borough, and to a large extent for adjacent rural districts.

The following table shows the number of cases dealt with during 1921 from the adjoining rural districts as well as the Borough :—

	In Hospital Dec. 31st, 1920.	Admitted.	Discharged.	Died.	In Hospital Dec. 31st, 1921.
Small-pox... ..	—	1	1	—	—
„ Contacts	—	18	18	—	—
Diphtheria	15	52	56	2	9
„ “ Carriers ”	4	17	21	—	—
Scarlet Fever	9	75	54	1	29
Enteric Fever	—	6	5	—	1
Measles	—	4	4	—	—
Rubella	—	2	2	—	—
Mumps	—	15	15	—	—
Chicken-pox	—	7	7	—	—
Whooping Cough	—	2	2	—	—
Tonsillitis	—	3	3	—	—
Totals	28	202	188	3	39

Professional Nursing in the Home.—In 1917 an arrangement was made with the District Nursing Association to undertake the home nursing of cases of Measles referred to the Association by the M.O.H. This has been extended since then to cover cases of Whooping Cough, Ophthalmia Neonatorum, and Pneumonia. Payment is made at the rate of 8d. per visit, two visits in a day 11d., or, in the event of there being more than one case in the house, 4d. for every case after the first. Should the amount paid exceed the cost of a whole-time nurse, the scale of fees is to cease, and the cost to the Association of employing extra nurses is to be reimbursed by the Town Council.

Midwives.—The number of Midwives practicing in Cambridge is ten. The County Council is the supervising authority under the Midwives Acts; but by arrangement entered into between the County and the Borough in 1919, notifications which Midwives are required to make are sent direct to the Borough Medical Officer. The County Superintendent of Midwives also reports upon all such notifications, and upon the supervision of the practice of the Midwives to the Borough Medical Officer.

The notifications received during the year were:—Still-births 3, Ophthalmia Neonatorum 5, sending for Medical Help 61, laying out a dead body 5.

Clinics and Treatment Centres.—During the year there were four Maternity and Child Welfare Centres, viz.:—

Castle End, held in the Institute, Shelly Row;
Newmarket Road, District Nurses' Home.
35, Parkside.
Romsey Town, Gibson Hall, Romsey Terrace.

The accommodation at the Newmarket Road Centre has for some time been found inadequate owing to the large numbers attending and the limited space available. The Education Committee have now consented to the transfer of this Centre to their clinic premises in Park Side.

Each Centre meets once a week, and is conducted by a Lady Superintendent, who is a voluntary worker, and by one of the two Health Visitors. The doctors attend once a fortnight. Ante-natal consultations are held at Park Side once a fortnight.

The attendances during 1921 were:—

	Under 1.		1-5.		Expectant Mothers.	
	Children.	Attend- ances.	Children.	Attend- ances.	Number.	Attend- ances.
Castle End ...	114	632	41	152	5	5
Park Side ...	132	855	66	233	7	9
Romsey Town	133	863	51	223	—	—
Newmarket Road	194	1878	65	648	9	100
	—	—	—	—	—	—
Totals ...	573	4228	223	1256	21	114

Work of the Health Visitors.—The following table shows the number of visits paid by the two Health Visitors during 1920 and 1921:—

	1920	1921
First Visits to Infants ...	980	778
Subsequent Visits to Infants ...	2067	2700
Visits to Children 1—5 years old ...	321	416
First Visits to Expectant Mothers ...	57	67
Subsequent Visits to Expectant Mothers	25	6
Other Cases Visited ...	82	90
	—	—
Total ...	3532	4057

Report by W. B. Grandison, L.D.S., Public Dental Officer,

UPON

THE MATERNITY AND CHILD WELFARE DENTAL SCHEME.

INTRODUCTORY.

The Borough of Cambridge Dental Clinic for school children has been established sufficiently long to permit one to arrive at definite conclusions regarding the possibilities of such a scheme, as well as the deficiencies which render the attainment of the ideal (100 per cent. Sound Dentitions) impossible under past conditions.

A comparison of the Annual Reports for the years 1908 and 1920 respectively, indicates that, whereas only 2·8 per cent. of the children examined in the former year had dentitions free from Dental Caries, no less than 67 per cent. of the children examined in the latter year had sound dentitions, an increase of 64·2 per cent., covering a period of 13 years.

That this condition has resulted, wholly, from Conservative Dentistry (that is to say, "The elimination of the worst and the restoration or repair of the least decayed") is all the more gratifying, and does in itself bear testimony to the value of School Dentistry.

There are, however, certain circumstances prevailing, which will prevent any greater increase in the number of children with Sound Dentitions beyond the percentage already reached, and these are:—

1. Lack of organised effort in the shape of Oral Cleanliness.
2. Incorrect Diet.
3. Movement (unavoidable) of children from one school to another, the children concerned missing the opportunity of Inspection and Treatment.
4. Annual Inspection and Treatment fails, in some instances, to guarantee freedom from Dental Caries from one year to another.

For these reasons it is expedient to make an attempt to prevent the onset of Dental Caries rather than to cure the disease, and work under the Maternity and Child Welfare Dental Scheme will, no doubt, accomplish that aim by:—

1. Rendering the mouths of expectant and nursing mothers healthy and functional, and thus directly assist in the development of the infant.
2. Enrolling children in the Dental Scheme before the eruption of teeth.
3. Establishing the necessity of absolute cleanliness of the Oral Cavity.
4. Lectures on the correct feeding of infants, together with Lectures on the correct diet for older children.
5. Frequent inspections (not less than four times annually).

SCOPE OF THE SCHEME.

All expectant and nursing mothers, and children under 5 years of age, who attend the Maternity and Child Welfare Centres, are entitled to receive dental benefits under this Scheme, and they merely require the recommendation of the Medical Officer in charge of the Centre they attend.

FEES.

Work for children is entirely free, but mechanical appliances, such, for example, as artificial teeth, being costly, it was necessary to charge expectant and nursing mothers for dentures, etc.

It was originally intended, prior to my appointment, to regulate the fees according to the scale of the Ministry of Pensions, but I advised an alteration as follows :—

1. Maximum fees to be charged from one patient £5 os. od.
2. Fees to be charged according to the material used and the amount required. In short, fees are taken to cover the cost of manufacture and incidental expenses only.

PROPAGANDA.

Work, in the nature of Propaganda is more than ever necessary; and Lectures have been given to expectant and nursing mothers attending the various centres by your Public Dental Officer. Furthermore, the Health Visitors have done much good work, both at the Centres and in private houses; so much so, indeed, that the success of the scheme is due to them and certain members of the Maternity and Child Welfare Committee, who have, by their energy and tact, persuaded many mothers to take advantage of the treatment offered under the scheme.

Lectures, distribution of pamphlets, etc., mainly dealing with Diet and Oral Cleanliness, will be continued, and it is hoped that the numbers availing themselves of the treatment will increase year by year, particularly the children under school age.

Prevention of Dental Caries is an essential need, and this can only be accomplished if due attention is paid to :—

1. Correct Diet.
2. Oral Cleanliness.
3. Conservative Dentistry.

STATISTICS.

During the year 78 mothers were recommended for Dental Treatment, and 64 took advantage of the treatment offered, the remaining 14 preferring to defer operations until after the birth of the child.

CONDITION OF THE TEETH OF 64 EXPECTANT OR NURSING MOTHERS AT INSPECTION.

Sound.	Saveable.	Unsaveable.	Missing.
555	58	710	708

CONDITION OF THE TEETH OF 64 EXPECTANT OR NURSING MOTHERS AFTER TREATMENT.

Sound.	Saveable.	Unsaveable.	Missing.
587	26	86	1332

The *total* number of *attendances* at the Clinic during the year 1921 was 218.

SUMMARY OF WORK DONE.

Total Number of Extractions ...	...	...	624
Total Number of Fillings ...	...	...	49
Total Number of Scalings ...	...	...	17
Total Number of Dentures Inserted ...	...	...	34
Total Number of Other Operations—			
Crowns ...	...	...	5
Gum Treatment ...	...	...	11
Special Treatment ...	...	...	11

In addition, 46 children under school age were inspected and enrolled in the Maternity and Child Welfare Dental Scheme. That is to say, “these children will be examined quarterly and, if necessary, treated to prevent the incidence of Dental Decay from becoming established.”

THE CONDITION OF THE TEETH OF 46 CHILDREN AT INSPECTION. TEMPORARY TEETH.

Age.	No. of Children.	Sound.	Decayed Saveable.	Decayed Unsaveable.
Less than 1	12	45	Nil	Nil
„ „ 2	14	163	14	Nil
„ „ 3	10	188	5	Nil
„ „ 4	8	140	20	Nil
„ „ 5	2	26	14	Nil
Total ...	46	562	53	Nil

The treatment extended to the children attending the Maternity and Child Welfare Dental Clinic has been entirely devoted to Oral Cleanliness, alteration of Diet, and the application of Nitrate of Silver to the 53 teeth which were decayed, but saveable, with a view to arrest the spread of the disease, until such time as the teeth affected may be filled.

In conclusion, I beg to insert the observations made by my predecessor, Mr. W. H. Jones, M.A., L.D.S. (Eng.), on the subject of Dentistry in connection with Maternity and Child Welfare Schemes, because these observations are not only useful, but detail various technicalities, important to a Council commencing work of this nature.

VIII.—SUMMARY OF DENTAL TREATMENT OF EXPECTANT AND NURSING MOTHERS.

During the year 1920 the premises, 35, Park Side, adjoining the Institute, have been leased by the Corporation as a Minor Ailments and Maternity and Child Welfare Clinic. This extension of premises has enabled a scheme to be drawn up for the Dental Treatment of Expectant and Nursing Mothers, and of Infants below the commencing age for school. The necessity of such treatment is generally admitted.

Dr. J. W. Ballantyne, M.D., F.R.C.P., Physician to the Edinburgh Royal Maternity Hospital, has made a systematic examination of 100 cases, unselected, beginning on June 3rd, 1919, presenting at that Institution. The results revealed a "most imperfect dental condition."

In only two cases were all the teeth present in an undecayed condition. The remaining 98 patients all had more or less defective teeth, and by far the most common result was stated in the words "many decayed, some extracted."

Arising on this examination by Dr. Ballantyne the following remarks may be made :—

(1) *Age*—In Cambridge, owing to the School Dental Treatment, a better condition may be expected to be found in the cases under 25 years of age. The following table may be cited :—

DENTAL CONDITIONS OF "LEAVERS" FROM CAMBRIDGE SCHOOLS
(BOYS AND GIRLS)

Year.	Number of "Leavers" Examined.	Number of Children Left with their Permanent Teeth			Age reached in the Year 1920.
		Free from Decay.	One or More Slightly Decayed.	Some Decayed and One or More Unsaveable.	
1908	248	22	71	155	26 years
1909	156	35	45	76	25 "
1910	70	62	7	1	24 "
1911	84	67	13	4	23 "
1912	226	141	31	54	22 "
1913	380	244	60	76	21 "
1914	467	338	54	75	20 "
1915	451	344	49	58	19 "
1916	517	365	54	98	18 "
1917	312	225	23	64	17 "
1918	440	297	56	87	16 "
1919	503	342	59	102	15 "
1920	467	335	38	94	14 "
Total	4321	2817	560	944	

The figures for the earlier years refer to selected cases, as the age limit of treatment was then in force. The figures for the year 1914 and subsequent years comprise all the "leavers" it was practicable to inspect and treat. Taking these years together it may be seen that 71·1 per cent. left school with their teeth free from decay; 16·5 per cent. left school with one or more teeth slightly decayed, and 18·3 per cent. left school with some teeth decayed, and one or more already unsaveable. These percentages represent a fair picture of the average conditions of the girl "leavers" in any year since 1914, and there is therefore good reason to hope that in the future the expectant mothers in Cambridge will show dental conditions far better than those suggested by Dr. Ballantyne's Report. The problem presented in Cambridge therefore may be divided into three classes:—(a) the expectant mother over 26 years of age; (b) those less than 26 years of age, who either could not (age limit of treatment) or did not (parental refusal) avail themselves of the services of the School Dentists, and (c) those who availed themselves of such services.

Number of Decayed Teeth and Number Extracted.—Dr. Ballantyne's figures represent a minimum of the conditions of decay, as they were made by a medical man, and not by a dental surgeon equipped with mirror and probe, and the necessary training to detect the presence of decay in its earliest stages.

Dental Treatment Previously Received.—The position with regard to fillings in Cambridge would be profoundly modified by the work done in the school dental department, more particularly since the year 1913, as shown in the Table of "Leavers" above.

Dr. Ballantyne's conclusions bring out in the clearest manner that for some years in Cambridge, in dealing with the dental conditions of women, we must be prepared to provide for classes (a) and (b) facilities for extraction of rather a large number of unsaveable teeth per head with their replacement by dentures, while coincidentally providing (c) with facilities for further fillings, if necessary, in cavities developed between the time of leaving school and becoming pregnant.

Custom has established a "close time" for the teeth during pregnancy and lactation—a time during which dental decay is allowed to go on unchecked. There would appear to be no foundation in fact for this attitude, but rather, on the contrary, must the removal of causes of oral sepsis be attended at all times with the greatest benefit to the patient. There are no records, even in a small percentage of cases, that dental operations have precipitated labour, and the researches of Dr. Harold Waller have proved the benefit that accrues to the nursing mother and infant when septic teeth have been coincidentally removed. To suggest that dental disease militates against successful breast-feeding is not to suggest that it is responsible for all instances in which the child fails to thrive on the breast milk. Too frequent suckling, too many clothes and insufficient ventilation are responsible for the institution of a great deal of bottle feeding. Even so, when the management of the baby and the feeding arrangements are arranged to fulfil the physiological demands of lactation, as well as of infant digestion and bodily

comfort, there remain a number of cases where the child fails to thrive. Dissatisfaction with the breast feeds and vomiting are often early symptoms in the child of such a failure. The mother of such a child may present a frail, unhealthy appearance, and it is not uncommon to find that the child is under-sized, has a persistent blueness of the extremities, and does not gain in weight at a satisfactory rate.

There would be little object in thus referring to the familiar aspects of a well-known and prevalent disease, were it not comparatively easy to show that its ill-effects in nursing women are not confined to the mothers themselves, but are of considerable importance to their children. The real importance of the question lies in the chance which treatment offers of effecting a sufficiently rapid improvement in a woman's health to raise her powers of lactation from a subnormal to a satisfactory level, and so of avoiding the need to rear the child by hand, with all the difficulties, dangers and expense which this process entails. If a change of such unquestioned benefit can be conferred by the removal of dental disease, a tenacious attachment to infected teeth can no longer be regarded simply as a matter of individual preference, to be respected on grounds of personal liberty. The prevalence of the condition, on the other hand, must be recognised as a very disastrous one, claiming attention on national grounds of the first importance in view of the interference it produces with the course of infant welfare.

Dr. Waller is able to show that the removal of dental disease, if adequately carried out, even after it has produced symptoms such as have already been mentioned, is followed by an improvement in the mother's health sufficiently rapid and substantial to be of signal benefit to her child. The rate of gain in the child's weight is accelerated, and the length of time over which nursing can be carried on, is prolonged. These symptoms are reinforced by the cessation of vomiting and willingness on the part of the infant to sleep for long intervals between the meals.

To endeavour to provide facilities for the treatment of expectant and nursing mothers a dental surgery has been fitted up in the extended premises during the year 1920. The equipment of the surgery is very complete, and adjoining are rooms for waiting and "rinsing." The rooms were completed on October 1st, 1920.

At a meeting of the Special Dental Sub-Committee (of the Maternity and Child Welfare Committee) held on January 20th, 1920, it was recommended that every expectant and nursing mother who is recommended by her medical attendant, or by the medical officer of an infant clinic, shall be eligible for treatment. On receipt of a request from the above the Dental Officer shall make an examination of the mouth, and, if the case does not require the administration of a general anaesthetic, he shall proceed to carry out the necessary treatment. When a general anaesthetic is required, arrangements shall be made for its administration by the patient's medical attendant, if desired, or by the medical officer of the clinic. Where the treatment cannot entirely be carried out before the confinement, only as much as is necessary shall be done at once, the remainder being carried out as soon as possible after the child is born. In the event of new dentures being required the Dental Officer shall take the necessary steps to provide the same.

During the early stages of the scheme it was proposed to limit this branch of Public Dental Service to one half-day per week, the time suggested being Saturday morning. This would enable the Borough Dentist to carry out the preliminary arrangements without interfering with his duties as School Dentist. Later, if necessary, additional professional assistance could be arranged.

The charts, etc., required for recording the results of inspection, and the treatment given, were prepared by Mr. Jones. They have been printed, and are now sold by Messrs. J. McQueen & Co., Moat Road, Leicester.

FACILITIES FOR THE TRANSPORT OF THE SICK AND INJURED.

For non-infectious cases and accidents there are now two motor ambulances available for public use at reasonable fees, or, in certain cases, free of charge. One of these is the property of the Red Cross Society, and during the year the Watch Committee of the Town Council was presented by public subscription with a new motor ambulance, which is under the direct control of the Police.

For cases of infectious disease there is a motor ambulance stationed at the Infectious Diseases Hospital. This was presented to the Town Council by the Red Cross Society in 1920, and is an immense improvement upon the antiquated horse ambulance formerly in use. This is of special importance now that Rural District Councils in Cambridgeshire are sending cases to the hospital in the Borough. Several districts have no ambulance, and in these cases the Borough ambulance is used without entailing any prolonged absence from the town.

LABORATORY WORK.

All bacteriological examinations are made at the Medical Schools by Dr. Graham-Smith. A fee is paid to medical practitioners for swabbing contacts, and also for giving antitoxin to patients who are unable to pay themselves. For many years now anti-diphtheritic serum has been supplied by the Council.

ADOPTIVE ACTS, BYE-LAWS AND LOCAL REGULATIONS IN FORCE.

The following Acts have been adopted :—

Infectious Diseases (Prevention) Act, 1890. Adopted January 31st, 1891.

Public Health Acts (Amendment) Act, 1890 (Part III.). Adopted January 1st, 1893.

Notification of Births Act, 1907. Adopted July 1st, 1909.

Public Health Acts (Amendment) Act, 1907, Parts II., III., IV., V. and VI. Adopted December 24th, 1910.

The following are the bye-laws and regulations in force with the year of coming into operation :—

Buildings and New Streets, 1901 and 1911.

Drainage of Buildings, 1901.

Common Lodging Houses, 1904.

Slaughterhouses, 1889.

Nuisances, 1889.

Dairies, Cowsheds and Milkshops, 1900.

Cleansing of Footways, 1904.

Rain Water Pipes, 1856.

HOUSING.

The lack of sufficient housing accommodation still constitutes the most serious problem from the point of view of health, if from none other, that confronts the Local Authority. From the statement given below it will be seen that the total number of new houses erected during 1921 was 72, of which 70 may be said to be suitable, so far as accommodation goes, for the working-classes. The supply falls very far short of the demand ; indeed, it falls short even of an average pre-war year's supply, which was not less than a hundred houses. Even in pre-war days the supply was never excessive, the proportion of "empties" standing usually at the low figure of 2 per cent. This small margin, which barely allowed for free movement of the people, has been completely wiped out.

The want of new houses also reacts most unfavourably upon existing dwellings, and has tended, along with other important factors such as high prices of labour and materials, to lower the whole standard of housing. The arrears of repairs are now beginning to be dealt with, and, with a drop in prices, there has of late been less difficulty in getting necessary work carried out.

It will be readily understood, therefore, that over-crowding, which is by no means uncommon, presents another serious feature of the shortage of houses, which, as things stand, cannot be satisfactorily dealt with. I am unable to give precise statistics on this subject, but the following are a few examples. In 116 homes in which a baby was born during 1921, overcrowding was the rule, the number of persons per bedroom being anything from three to six or seven. Those are not the people who were found in former times to be overcrowded. They are young married people with the first or sometimes their second baby, who are unable to get a house of their own, and who are living now with parents or other relatives, or in rooms. In most cases there are two families in the house, but in four instances there are three families per house. These houses have each three bedrooms, and sleeping in these are 5 adults and 3 children, 4 adults and 4 children, 6 adults and 5 children, 5 adults and 4 children. The following are a few typical examples taken from houses with two families, each with two bedrooms :—2 adults 6 children, 5 adults 4 children, 6 adults 5 children, 3 adults 5 children, 5 adults 5 children.

In considering the matter generally it will, of course, be borne in mind that the condition of things disclosed by these few instances presents a problem of which the purely public health aspect is only one side. But viewed only as a matter of health there can be no question of the seriousness of the matter, and the sooner the speeding up of building is proceeded with, the sooner will this very serious menace be removed.

Number of new houses erected during the year :—

(a)	Total	...	...	...	...	...	72
(b)	As part of a municipal housing scheme	...	...	...	...	...	49

1. *Unfit dwelling houses :*

Inspection—(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	1142
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	257
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	53
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	513

2. *Remedy of Defects without Service of formal Notices :*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers... ..	558
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3. *Action under Statutory Powers :*

A.—Proceedings under section 28 of the Housing, Town Planning, etc., Act, 1919.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	43
(2) Number of dwelling-houses which were rendered fit :—	
(a) by owners	21
(b) by Local Authority in default of owners	20
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	—

B.—Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	35
(2) Number of dwelling-houses in which defects were remedied :—	
(a) by owners	22
(b) by Local Authority in default of owners	10

SALE OF FOOD AND DRUGS ACTS.

The following table shows the number and character of the samples taken in 1921:—

	Number.	Genuine.	Not Genuine	Prosecutions	Convictions.
Milk (formal)	76	66	10	4	3
Milk (informal)	13	12	1	—	—
Butter (formal)	3	3	—	—	—
Butter (informal)	2	2	—	—	—
Cream (formal)	6	6	—	—	—
Margarine (informal)	2	2	—	—	—
Dripping (informal)	2	2	—	—	—
Lard (formal)	5	5	—	—	—
Cheese (informal)	2	2	—	—	—
Jam (formal)	6	6	—	—	—
Coffee „	5	5	—	—	—
Sago „	8	5	3	3	1
Tapioca „	2	2	—	—	—
Arrowroot „	4	4	—	—	—
Rice „	3	3	—	—	—
Self-Raising Flour (formal)	2	2	—	—	—
Corn Flour „	3	3	—	—	—
Bun Flour (informal)	1	1	—	—	—
Ground Ginger (formal)	2	2	—	—	—
Ground Ginger (informal)	1	1	—	—	—
White Pepper (formal)	2	2	—	—	—
White Pepper (informal)	2	2	—	—	—
Baking Powder (formal)	5	5	—	—	—
Egg Powder „	3	3	—	—	—
Lemon Powder „	4	4	—	—	—
Vinegar „	4	4	—	—	—
Epsom Salts „	2	2	—	—	—
Bi-carbonate of Soda (formal)	3	3	—	—	—
Bi-carbonate of Soda (informal)	1	—	1	—	—
Tartaric Acid „	2	2	—	—	—
Sulphate of Soda „	3	3	—	—	—
Phosphate of Soda „	1	1	—	—	—
Bi-carbonate of Potash „	2	2	—	—	—
Tincture of Quinine „	1	1	—	—	—
Total	183	168	15	7	4

The number of samples taken each year since 1910 is as follows :—

		Number.	Not Genuine.	Percentage not Genuine.	Prose- cutions.	Convic- tions.
1911	...	114	14	12.3	8	7
1912	...	126	36	28.5	4	2
1913	...	120	27	22.5	5	4
1914	...	165	13	7.8	9	9
1915	...	107	9	8.4	9	5
1916	...	123	12	9.7	8	8
1917	...	124	12	9.7	9	8
1918	...	109	7	6.4	6	6
1919	...	128	3	2.3	1	1
1920	...	147	10	6.8	7	1
1921	...	183	15	8.2	7	4

Administrative action regarding samples reported not genuine :—

Name of Article.	Regis- tered No.	Result of Analysis.	Remarks.
Milk	53	21% deficient in fat.	“ Appeal to cow ” samples taken.
„	58	16% „	
„	64	6% „	Check sample on No. 53. Milk from recently calved cows was not being bulked with remainder. Suggestion to do so was adopted.
„	69	3% „	I.C.D. samples. Letter sent
„	71	5% „	to farmer producer.
„	74	6% „	Check sample on No. 58. I.C.D. showed 2.80 fat. Letter sent to farmer producer.
Bi-carbonate of soda	75 in- formal	Bi-carbonate of Soda 15% Borax 85%	Received from I.D.H. Check sample No. 76 genuine. En- quiries indicated this article had been mixed with borax at I.D.H.
Sago	99	No sago. Entirely tapioca.	Convicted and fined £2 12s. 6d., including costs.
„	102	ditto	Dismissed.
„	105	ditto	Dismissed.

Name of Article.	Registered No.	Result of Analysis.	Remarks.
Milk	113	27% added water.	Convicted and fined £7 10s., and costs £1 2s. 9d. } £25 18 3
"	114	13% "	" " " }
"	115	17% "	" " " }
"	117	16% deficient in fat.	Summons dismissed.
"	148 in-formal.	3% "	To Infectious Diseases Hospital.

In addition to the first six non-genuine samples, in six others taken at the end of May and the beginning of June the percentage of milk fat was only 3 or 3.05. The producers or purveyors were interviewed, and their attention directed to the poor quality of the milk. It was not thought desirable to take action, as "Appeal to the Cow" samples showed a similar deficiency. Action was taken in one instance for deficiency in fat (No. 117). The summons was dismissed, defendant proving the milk was as it came from the cow, citing *Hunt v. Richardson*.

All samples likely to contain preservatives were examined for these, but in none was any preservative found.

Twenty-three samples of milk were taken "in course of delivery" at the Railway Station, at Institutions, and at the time of delivery to the retailer.

Eleven samples were taken by "appeal to the cow."

No sample was taken for bacteriological examination.

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912—17.

1. Milk and Cream not sold as Preserved Cream.

	No. of samples examined for Preservatives (a)	No. with Preservatives present (b)
Milk	89	None
Cream	5	None

2. Cream sold as Preserved Cream.

(a). Instances for samples of correct label :—

Statements correct	...	...	1
Statements incorrect	...	...	0

(b). Milk fat in Cream sold as Preserved Cream :—

Over 35 per cent.	...	...	1
Under 35 per cent.	...	...	0

(c). Instances of Article V. (Part II.) not complied

with	...	...	...	...	...	0
------	-----	-----	-----	-----	-----	---

FOOD INSPECTION.

The following table shows the amount of meat condemned in 1921, and was mostly from animals affected with Tuberculosis.

					Cwts.	Qtrs.	St.	Lbs.
Beef	...	...	...	...	53	1	0	11
Mutton	...	...	...	...	2	0	0	10
Pork	...	...	...	...	21	1	1	6
Total					76	3	0	13

This amount is much less than in 1920, and the question of where the former "casualties" are disposed of still arises. Doubtless a number of "screws" were dealt with as "casualties" during control, and farmers wisely cleared the more obvious undesirables from their herds, and are therefore not now breeding from such stock. This is confirmed by the smaller amount of pork now condemned, approximately one-half of that condemned in pre-war times, when pigs were given the surplus milk often from poor and unhealthy cows. "Casualty" cattle was a term used during control, and referred to all animals in poor condition, injured animals, or those which from any cause were not graded.

Other foods condemned during the year included :—

					Cwts.	St.	Lbs.
Oatena	...	...	...	...	23	1	2
Fish	...	...	...	...	2	3	2
Apples	...	...	...	...	1	—	—
Brocoli	...	...	...	...	2	—	—
Brussels Sprouts	...	...	...	...	3	7	6
Butter	...	...	...	...	—	—	7 $\frac{3}{4}$

Also the following tinned goods :—Corned Beef 9 6-lb. tins, Tomatoes 25 tins, Cream 71, Pineapple 4, Lobster 3, Milk 2.

SLAUGHTERHOUSES.

The following statement shows the number of slaughterhouses in use in the Borough at the date mentioned :—

				1914.	1920.	1921.
Registered	...	...	...	16	13	13
Licenced	...	...	...	11	12	13
				—	—	—
				27	25	26
				—	—	—

The premises have been inspected by the Public Health Committee since my recent report, and it has now been decided that one licenced premises will not have the licence renewed after December, 1921, and that four licenced premises will be granted a final 12 months licence.

In addition, several alterations and modifications of the remaining premises are to be carried out, and the Registered premises reviewed during 1922.

An important item for consideration is the lighting, both natural and artificial. At present some premises are so insufficiently lighted as to handicap the inspectors in making their examinations. It is hoped to remedy this by a clause in the new byelaws which it is proposed to obtain.

During the latter part of the year there has been a growing tendency for farmers outside the Borough area to kill pigs and hawk the meat within the district, a practice which the local butchers strongly resent, especially as the meat is not subjected to inspection at the time of killing. The meat inspectors have at various times stopped these hawkers and inspected the meat, but have not discovered any which was affected with disease or otherwise unfit.

This condition emphasises the necessity of an abattoir, or some form of centralisation of killing in a given area, and for the licencing of those connected with the meat trade as recommended in the Report of the Departmental Committee on Meat Inspection.

RAG AND FLOCK ACT.

Four samples of flock were submitted to the Public Analyst for analysis.

Three were found to be in conformity with the Regulations.

The fourth sample had been sent to a local branch from the firm's headquarters to be used on cheap repair work.

It was unsuitable and unsatisfactory, containing 145 parts of Chlorine per 100,000 parts of flock, and was returned to the firm's headquarters.

FACTORIES AND WORKSHOPS.

I.—INSPECTION.

INCLUDING INSPECTIONS MADE BY THE SANITARY INSPECTORS.

Premises.	Inspections.	Written Notices.
Factories (including Factory Laundries)...	92	9
Workshops (including Workshop Laundries and Bakehouses)	534	16
Workplaces	56	18
	682	43

2.—DEFECTS FOUND.

<i>Nuisances under the Public Health Act :</i>	No. of Defects Found. Remedied.	
Want of Cleanliness...	4	4
Want of Ventilation	—	—
Overcrowding	1	1
Want of Drainage of Floors	1	1
Other Nuisances	2	2
Sanitary Accommodations {	insufficient	2
	unsuitable or defective	5
	not separate for sexes	2
 <i>Offences under Factories and Workshops Act :</i>		
Illegal occupation of underground Bakehouse (S. 101)	0	0
Breach of special sanitary requirements for Bakehouses (SS. 97 to 100)	0	0
	—	—

3.—HOME WORK.

List of Out-Workers (Section 107) :

List received from employers. Wearing Apparel—		Total		Twice in the Year.		Once in the Year.	
		Lists.	Lists.	Out-workers.		Lists.	Out-workers.
(1) Making, etc. ...	98	84	467	6	26		
Received from other							
Addresses of { Councils	2	4	1	1			
Out-workers { Forwarded to other							
{ Councils	4	163					
Prosecutions (failure to send in lists)			0		0		
No. of Inspections of Out-workers' Premises			97				
Out-work in unwholesome Premises (Sec. 108)			5				
Out-work in infected Premises (Secs., 109, 110)			5				

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year ... 520

5.—OTHER MATTERS.

Matters Notified to H.M. Inspector of Factories :

Class.	Number.
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	0
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Acts (S. 5)	8
Other	0

Underground Bakehouses (S. 101) :

In use at the end of the year 4

CANAL BOATS.

ANNUAL REPORT UNDER THE CANAL BOATS ACTS, 1877—1884.

The number of boats inspected during the year 1921 was 4 (15 inspections).

In one instance the master did not have the certificate for the boat on board (c) ; the boat required cleaning (g) ; there was no proper water vessel (j). In another instance two boats required painting (i). Notices were sent to the owners for these infringements and complied with.

No legal proceedings were taken during the year.

There were no women or children on board, and no case of infectious disease has been notified or traced.

No boats have been detained for cleansing or disinfection.

The Cambridge Corporation is not a Registration Authority.

PUBLIC HEALTH STAFF.

This includes all who are employed in work connected with the public health, whether under the Public Health, Maternity and Child Welfare, or the Education Committees.

<i>Medical Officer of Health, School</i>			
<i>Medical Officer and Superintendent of the Infectious Diseases Hospital</i>	...	...	ANDREW J. LAIRD, M.D., D.P.H.
<i>Assistant Medical Officer of Health and Assistant School Medical Officer</i>	...	...	A. MABEL GURNEY, M.B., D.P.H.
<i>Borough Dentist</i>	...	...	W. B. GRANDISON, L.D.S., R.C.S.
<i>Assistant Dentist</i>	...	...	T. H. ROBERTS, L.D.S.
<i>Dental Attendants</i>	...	...	MISS BENNETT AND MISS HALL.
<i>Bacteriologist</i>	...	...	G. S. GRAHAM-SMITH, M.D., &c.
<i>Sanitary Inspectors</i>	...	...	*L. H. DIBBLIN (Inspector under the Sale of Food and Drugs Acts).
„	...	...	WM. STEARN (Inspector of Common Lodging Houses).
„	...	...	*C. WHITE.
<i>Disinfector</i>	...	...	H. D. MURFITT.
<i>Assistant Disinfector</i>	...	...	W. NORTHFIELD.
<i>Medical Officers to the Infant Welfare Centres (Part-time)</i>	...	...	MRS. ROBSON, M.B., C.M., D.P.H.
„			F. E. A. WEBB, M.A., M.R.C.S., O.B.E., &c.
† <i>Health Visitors</i>	...	...	MISS COLE AND MISS SLACK.
<i>School Nurses</i>	...	...	MISS STEVENS AND MISS NICHOLS.
<i>Matron of the Infectious Diseases Hospital</i>	...	...	MISS I. MILNE MITCHELL.
<i>Clerks</i>	...	...	R. R. WALLIS.
„	...	...	MISS G. WALLIS (School Medical).
„	...	...	J. A. DAWSON.
<i>Office Boy</i>	...	...	J. WISBEY.
<i>Labourer</i>	...	...	G. GEORGE.

* Certificate of the Royal Sanitary Institute for Sanitary Inspectors and for Meat Inspectors.

† Certificate of the Royal Sanitary Institute for Health Visitors.

SUMMARY OF THE SANITARY INSPECTOR'S WORK FOR YEAR ENDING DECEMBER 31st, 1921.

Totals.

INSPECTIONS OF PREMISES :

On complaint	...	...	...	...	...	...	282
<i>Re</i> Infectious Disease	...	...	...	...	...	...	12
Other inspections and re-inspections	...	...	...	...	...	...	3204
							3498

NOTICES :

Preliminary intimations	...	...	...	...	...	...	348
Statutory notices	...	...	...	...	...	...	38
Summonses	...	...	...	...	...	...	1

HOUSES (HOUSING ACT, 1909) :—

Number inspected for purposes of Sec. 17	...	...	...	...	...	257
Number unfit for habitation	...	...	...	...	...	53
Number of representations made	...	...	...	...	...	—
Number of Closing Orders made	...	...	...	...	...	—
Number of houses remedied without Closing Orders	...	...	...	...	...	137

General Character of Defects found—Roofs not Watertight, Dilapidations,
Dampness to Floors and Walls, etc.

COMMON LODGING HOUSES :

Number of inspections	...	...	...	...	...	84
Number limewashed	...	...	...	...	...	7
Number of contraventions of Bye-Laws	...	...	...	...	...	—

SLAUGHTERHOUSES :

Number of Inspections	...	...	...	...	...	2930
Cleansed and limewashed	...	...	...	...	...	112
Repaired	...	...	...	...	...	5
Closed or discontinued during the year	...	...	...	...	...	1
Number of changes of occupier	...	...	...	...	...	1
Receptacles for refuse provided	...	...	...	...	...	3

COWSHEDS :

Number of inspections	...	...	...	...	...	133
Improved drains, lighting and ventilation	...	...	...	...	...	1
Overcrowding abated	...	...	...	...	...	2
New sheds constructed	...	...	...	...	...	—

DAIRIES AND MILKSHOPS :

Number of inspections	...	...	...	...	...	99
Improved floors, lighting, and ventilation	...	...	...	...	...	2
Cleansed and limewashed	...	...	...	...	...	36

FACTORIES AND WORKSHOPS :

	<i>Factories.</i>	<i>Work-shops.</i>	<i>Work-places.</i>	<i>Bake-houses.</i>
Number of inspections...	92	359	56	175
Number of defects found ...	9	9	18	7
Number of defects remedied...	9	9	18	7
Number cleansed and limewashed	2	12	16	95

OUTWORKERS' PREMISES :

Number of inspections ...	...	...	...	...	...	97
Number found unwholesome ...	...	...	...	...	...	5
Number cleansed and limewashed	...	...	...	...	...	5

SCHOOLS :

Number of inspections ...	...	...	...	...	...	40
Number of defects found	...	...	...	...	...	7

VANS :

Number inspected ...	...	...	...	...	...	31
Number found unsatisfactory	...	...	...	...	...	—

Description of Sanitary Work carried out :—

HOUSES :

Cleansed and limewashed	...	...	...	...	...	11
Provided with damp-proof courses	...	...	...	...	...	27
Wood floors ventilated ...	...	...	...	...	...	53
Roofs, gutters and downspouts fixed or repaired	...	...	...	...	...	516
Rainwater pipes disconnected from drains	...	...	...	...	...	23
New floors laid ...	...	...	...	...	...	116
New sinks fixed ...	...	...	...	...	...	81
Supplied with a sufficient supply of water	...	...	...	...	...	40
Water samples analysed ...	...	...	...	...	...	4
Accumulation of manure or refuse removed	...	...	...	...	...	75
Nuisances arising from the keeping of swine and other animals abated	...	...	...	...	...	21
„ other—Ditches cleansed, etc.	...	...	...	...	...	9
Pavements of yards repaired ...	...	...	...	...	...	52
Pavements of yards relaid with impervious material	...	...	...	...	...	116
Overcrowding abated	...	...	...	...	...	5

DRAINS :

New drains constructed	...	...	...	...	...	55
Intercepted from sewer and ventilated	...	...	...	...	...	28
Waste pipes of sinks disconnected	...	...	...	...	...	11
Waste pipes of sinks, etc., trapped or renewed	...	...	...	...	...	64
Cleansed or repaired	...	...	...	...	...	163
Drain openings removed from inside buildings	...	...	...	...	...	11
Smoke tests applied	...	...	...	...	...	132

WATER CLOSETS :

New W.C.'s provided	...	...	...	...	...	15
New pails provided	...	...	...	...	...	9
Provided with flushing cisterns	...	...	...	...	...	172
Repairs to flushing cisterns	...	...	...	...	...	169
Closets cleansed or limewashed...	...	...	...	...	...	34
New " pans " provided	...	...	...	...	...	164
Repaired	...	...	...	...	...	74

NUISANCES FROM SMOKE ABATED 3

MISCELLANEOUS WORKS NOT CLASSIFIED ABOVE 695

SCHOOL REPORT

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Report of School Medical Officer

FOR THE YEAR 1921.

Number of Elementary Schools	...	...	...	25
Departments	...	...	...	43
Average number of Children on the Registers	...	...	...	7845
Average attendance	...	...	...	7075

Information, which it is not considered necessary to repeat year by year, regarding the methods and places of inspection, the means of securing co-operation with the Public Health Authority, Teachers and Parents will be found in previous Annual Reports.

Staff.—The only changes in the staff during the year were in the dental department. Mr. W. B. Grandison succeeded Mr. W. H. Jones, and entered upon his duties on March 1st, 1921, and Mr. T. H. Roberts took up his duties as Assistant Dentist on April 1st. There had been no dentist for three months, and no assistant dentist for six months. The arrears of work which had accumulated as a consequence are now being overtaken. Fresh developments of dental work in connection with children below school age and expectant mothers, and the treatment of temporary teeth which has now been commenced, may be expected to result in a still further improvement in the dental condition of school children. A report on this branch of the work, prepared by Mr. Grandison and Mr. Jones, will be found on page 15.

School Premises.—With regard to the school premises, attention has been given to the defective condition of several playgrounds, and to the closet accommodation at St. Philip's Infants' School. Complaint has been made of the defective ventilation of the Brunswick Boys' and Girls' Schools, and of the absence of any outside screens to shelter the large area of window in these schools from the sun. The insufficient use of the means of ventilation provided at two or three of the schools has also been the subject of complaint.

The number of children seen at the ordinary routine inspections, and also those inspected for some special reason, are shown below. (See also Table I.) :—

<i>Routine Cases :</i>				<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
Entrants	...	...	...	350	351	701
Intermediates	...	...	...	348	295	643
Leavers	...	...	...	407	428	835
				1105	1074	2179
<i>Special Cases</i>	...	...	...	74	72	146

In addition 804 children (416 boys and 388 girls) were re-examined during the year.

The reduced numbers of “entrants” and “leavers” is due to this year being the first complete year in which there have been no accumulations of arrears in these groups. The figures, therefore, are now comparable only with the year 1914.

Inspection Clinic.—Apart from inspections at schools a large number of children are inspected at the clinic at Parkside. This is open every forenoon. The following figures show the number of children who have attended, and the number of attendances made by them. The average daily number seen each day was 47·8.

				<i>Children.</i>	<i>Attendances.</i>
1st Quarter	...	...	...	377	2397
2nd Quarter	...	...	...	641	1885
3rd Quarter	...	...	...	305	887
4th Quarter	...	...	...	594	1887
				1917	7056

Eye Clinic.—206 children attended at Parkside for special examinations of their eyesight.

Review of the facts disclosed by medical Inspection :—

Precise details will be found in the tables of figures given, but speaking generally of the inspections it may be said that 1921 has revealed a most satisfactory state of things. This is the personal opinion of Dr. Gurney, who carried out practically the whole of the inspections, and it is corroborated by the fact that relatively few of the children seen (only 182) required to be notified to Parents as in need of attention for defects. In addition, 192 children were noted as requiring to be kept under observation, and probably a number of those also will ultimately be notified as in need of treatment.

HEIGHT AND WEIGHT OF CHILDREN SEEN AT THE ROUTINE INSPECTIONS.

Boys (Height and Weight).

Years.	No. exam- ined 1921	Average Height in Inches.				Average Weight in Pounds.			
		1914	1919	1920	1921	1914	1919	1920	1921
3	44	35.70	37.43	36.94	36.43	31.88	32.70	32.77	31.93
4	120	38.57	37.89	38.92	38.74	35.69	36.00	35.52	35.38
5	137	40.69	40.82	41.52	41.25	38.66	39.25	39.91	39.12
6	33	43.01	42.72	43.71	42.36	43.13	42.88	43.25	42.54
7	20	44.74	45.30	44.51	43.85	46.11	48.00	44.51	45.08
8	348	47.30	46.01	47.50	47.85	51.63	51.10	51.63	52.62
9	15	49.73	46.36	42.78	48.56	57.29	49.88	58.20	54.15
10	16	50.64	48.16	52.00	50.29	60.01	53.50	55.25	57.56
11	20	53.27	52.62	55.62	52.95	67.51	64.93	73.69	65.92
12	301	54.68	53.10	55.21	54.83	72.34	71.24	73.66	73.76
13	57	56.22	57.32	57.02	56.26	77.29	77.82	81.60	78.24
14	8	58.33	58.14	59.34	58.75	87.72	88.41	90.50	89.78
15	1	—	—	61.42	64.50	—	—	101.84	111.00

GIRLS (Height and Weight).

Years.	No. exam- ined 1921.	Average Height in Inches.				Average Weight in Pounds.			
		1914	1919	1920	1921	1914	1919	1920	1921
3	58	35.62	35.47	36.08	36.14	31.58	31.17	30.92	31.68
4	95	38.05	37.66	38.66	38.74	34.49	34.40	34.80	34.51
5	153	40.76	40.25	40.84	41.03	37.99	37.36	37.84	37.97
6	40	42.57	42.18	43.30	43.59	41.22	40.24	42.37	40.23
7	11	44.81	44.46	45.19	45.68	46.10	44.38	44.78	44.88
8	295	47.14	46.48	47.40	47.37	50.23	49.44	50.22	50.32
9	15	49.17	48.72	48.85	47.70	55.25	50.62	53.04	51.47
10	13	50.76	49.81	51.35	50.86	58.36	52.44	61.98	56.86
11	21	53.38	52.75	53.35	53.95	66.22	63.30	63.48	67.53
12	339	55.98	54.91	55.85	55.51	76.81	74.54	70.17	70.35
13	51	57.53	57.65	58.13	57.21	81.17	82.91	84.49	80.24
14	7	60.19	58.22	60.00	58.64	89.25	85.60	94.97	87.60
15	—	—	—	61.69	—	—	—	102.25	—
16	—	—	—	65.33	—	—	—	129.25	—

Nutrition.—The proportion both of boys and girls found to be satisfactorily nourished shows an improvement over 1920, and the proportion whose condition was such as to warrant classifying them as below the average in condition is just about half that of 1920.

	Boys.			Girls.		
	1913.	1920.	1921.	1913.	1920.	1921.
Above average (%) ...	10.5	2.4	5.6	10.2	3.4	5.1
Below average (%) ...	16.7	8.1	4.2	13.8	7.6	4.3

Clothing and Footgear.—Both boys and girls were satisfactorily clothed and shod, with the exception of 1.8 per cent. of the boys, and 1.4 per cent. of the girls. In assessing the quality of the clothing, regard is had not only to its sufficiency, but also to its repair and cleanliness.

Cleanliness.—The amount of attention given to this important requirement is partially indicated by the fact that the nurses paid 277 visits to the schools for the purpose of enquiring into the state of cleanliness of the children, and that a total of 15,016 inspections were made. Each department was visited on an average six times in the year. Twenty-three per cent. of the children were found with nits on the hair, and three per cent. with pediculi. The standard of inspection is no doubt a high one, for the finding of only a few nits is recorded. Nevertheless, it is discouraging to find how lightly this disgusting state of things is regarded by many, and how indignantly many parents resent having their attention directed to it.

A considerable improvement has, however, been effected, as the proportion found to be absolutely clean has risen from 69 per cent. in 1920 to 77 per cent. in 1921.

Ringworm.—Thirty-nine cases of ringworm were under treatment. In 1920 the number was 53.

The scalp was affected in 21 and the body in 18.

Thirteen of the scalp cases had X-ray treatment.

External Disease of the Eye.—The conditions found were:—Conjunctivitis 14, Blepharitis 4, Cataract 3, Styes 5, Corneal Ulcer 1, Ptosis 2, and Squints 44. The proportion was 3.3 per cent. In 1920 it was 2.8.

Defective Vision.—Ninety-four children (or 6.1 per cent.) (46 boys and 48 girls) were found with defective eyesight. In 1920 the proportion was 5.2 per cent.

Enlargement of the Cervical Glands.—Six hundred and twenty children had some glandular enlargement, half being very slight and the majority requiring no special treatment. The proportion among entrants (3—6 years old) was 35 per cent., intermediates (8 years old) 37 per cent., and among the “leavers” 13 per cent.

Tonsils and Adenoids.—One hundred and sixty children (12.3 per cent.) had enlarged, and 156 (7.1 per cent.) slightly enlarged tonsils. Fifty-six suffered also from adenoids.

Ear Disease and Deafness.—Twenty-five (1·1 per cent.) had defective hearing, and of these eleven (0·6 per cent.) had purulent discharges from the ears.

Disease of the Lungs.—Nine boys presented symptoms suggestive of tubercular disease, and were placed under the care of the Tuberculosis Officer.

Heart Disease.—One hundred and twenty-one children had symptoms of heart disease, of which 96 were considered to be organic and 25 functional.

Defects of speech were found in 25 children.

Other Defects.—These include 142 children with anaemia, 12 with nervous disease, 15 with rickets, 14 with skin disease, 14 with deformities, and 45 others with a variety of minor defects.

Vaccination.—The proportion with vaccination marks varied from 29 per cent. among the “entrants” to 45 per cent. among the “leavers.”

Infectious Diseases.—The numbers notified by Head Teachers and School Attendance Officers were as follows:—

	1917.	1918.	1919.	1920.	1921.
Influenza ...	—	296	113	33	13
Measles ...	160	225	463	538	53
German Measles ...	2	16	5	1	26
Whooping Cough	20	614	38	75	142
Chicken Pox ...	156	108	175	181	122
Mumps ...	31	13	37	88	1593
Ringworm ...	35	32	41	39	23
Scabies ...	17	3	4	1	4
Skin Diseases ...	18	10	29	43	19
Others ...	309	488	463	278	172
Totals ...	748	1805	1427	1436	2173

The year on the whole has been one markedly free from serious epidemic disease. Mumps, of which there has been an outbreak of quite unprecedented proportions, is, happily, as a rule not attended with serious consequences, except as regards the attendance. It was soon noted that the period of exclusion (4 weeks), which was at first observed, was really unnecessarily long, and the Education Committee, acting upon my advice, in May, decided to reduce the period to three weeks and also abolished the practice of excluding contacts. School closure was resorted to in the case of several schools, without, however, any apparent effect, as the outbreak, which had begun in December, 1920, spread slowly from school to school, until the whole town had been completely covered.

TREATMENT OF DEFECTS.

(1). At Addenbrooke's Hospital the conditions treated were chiefly tonsils and adenoids, ringworm and diseases of the middle ear

(2). At the School Clinic in Parkside minor ailments are treated, and all refraction work is carried out by the Assistant Medical Officer Dr. Gurney.

(3). By private medical practitioners.

(1). *Treatment at Addenbrooke's Hospital.*—The number of Hospital recommendations given was 71. In 1920 the number was 167, 146 in 1919, 138 in 1918, 109 in 1917, and 124 in 1916. The conditions for which treatment was required were :—Disease of the ears 17, disease of the eyes 4, ringworm 4, tonsils and adenoids 9, skin disease 9, minor injuries 7, debility and anaemia 6, hernia 3, and various other conditions 12. This does not represent all the work done at the hospital for school children, as in many cases parents obtained letters of recommendation from sources other than the Education Committee.

(2). *Treatment at the School Clinic.—Refractions.*—One hundred and eighty-seven children were referred for refraction. Of these 90 were found to have defective vision at the routine inspections in the schools, and 97 were specially referred to the clinic by School Nurses and Teachers. 187 had their vision specially examined, 181 of these being done by Dr. Gurney at the clinic. All the 181 had spectacles prescribed for them, and by the end of 1921, 160 had obtained spectacles. Four were not completed by the end of the year, and two were not considered to be in need of treatment.

For minor ailments (sores, skin diseases, ringworm and minor injuries chiefly) 479 children received treatment (dressings &c.), making altogether 4,384 attendances.

(3) Of the 182 children found at the routine inspections and referred for treatment (see p. 44) 170 had received treatment by the end of the year, making 93·4 per cent. of those actually referred for treatment. This is the highest percentage we have reached. Several of the twelve remaining untreated were only referred for treatment early in December, and barely had sufficient time to obtain the necessary treatment by the end of the year.

WORK OF THE SCHOOL NURSES.

School Visits.—A total of 448 visits were made to the schools ; 118 in connection with the routine medical inspections, 277 for the purpose of examining the condition of cleanliness of the children, 13 in connection with cases of diphtheria, and 40 for various other purposes.

Home Visits.—1,534 home visits were paid ; 552 for the purpose of " following up " cases of defect found at routine inspection, and in order to advise parents as to treatment, 729 in connection with infectious diseases, and 253 visits of enquiry as to the cause of absence of children notified as ill by the teachers and school attendance officers.

DELICATE AND PHYSICALLY DEFECTIVE CHILDREN.

Open-air School.—The number on the register of this school at the beginning of the year was 34. During the year 29 left and 23 were admitted, leaving 28 on the register at the end of 1921. Eighteen of the 29 who left were fit to return to their ordinary school, 5 were admitted to Sanatoria, 2 (also certified fit) had attained leaving age, 2 had left Cambridge, 1 was removed owing to the refusal of the father to pay the amount at which he was assessed for the payment of meals, and 1 went to a Home at Ramsgate.

The number awaiting a vacancy in the school at the end of the year was 38. Many more would have been recommended had there been sufficient accommodation.

A large number of delicate children (343) received cod liver oil and malt in the schools, on the recommendation of the Assistant Medical Officer or of the Tuberculosis Officer. All these children attended once a month at the school clinic, where they were again seen and weighed. This regular attendance thus afforded a most valuable opportunity for keeping under observation the more delicate children in the schools.

Twenty-one boys and eighteen girls were sent to school sanatoria on the recommendation of the Tuberculosis Officer.

A dining centre for school children was opened in the old Eden Street School during the year. A nourishing midday dinner is served on all school days, and also during part of the school holidays. The number of children attending during 1921 was 91. These children are selected and recommended in the same way as for malt and oil.

The maximum payment for the malt and oil is 2d. per week, and for dinners 2/6 per week. The assessments for the latter are undertaken by the General Care Committee.

Blind, Deaf, Mentally Defective and Epileptic Children.—The number of children who are maintained in institutions by the Education Committee are :—Blind 3, Deaf 8, and Feeble-minded 7.

Hope Class for Backward Children.—The number on the register at the beginning of the year was 44, and at the end of the year 42. Six left, and 4 were admitted in 1921. Two of the 6 who left were sent to special schools for the feeble-minded, 3 returned to their usual schools, and 1 left on reaching the age of 14. One girl was notified as an imbecile to the Local Control Authority.

The “Wolf Cub” and “Brownie” Classes carried on by the Voluntary Association for Mental Welfare have been continued, and have proved of much value to the children.

The Voluntary Association continues to co-operate with the Hygiene Committee, and reports on all children under supervision in their homes are sent regularly to the Committee.

TABLE I.—Number of children inspected 1st January to 31st December, 1921.

Entrants.								
Age	3	4	5	6	Other Ages.	Total.		
Boys	44	120	137	33	16	350		
Girls	58	95	153	41	4	351		
Total	102	215	290	74	20	701		

Leavers.								
Age	Inter- mediate. 8	12	13	14	Other Ages.	Total.	Grand Total.	
Boys	348	301	57	8	41	755	1105	
Girls	295	339	51	6	32	723	1074	
Total	643	640	108	14	73	1478	2179	

B. Special Inspections.

	Special Cases.	Re-examinations (No. of Children re-examined).
Boys ...	74	416
Girls ...	72	388
Total	146	804

C. Total number of individual children inspected by the Medical Officer as Routine or Special Cases. (No child being counted more than once in a year).

No. of Individual Children inspected ... 2325

TABLE II.—Return of Defects found in the course of medical inspection in 1921.

Defect or Disease.					Routine Inspections.		Specials.	
					Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.	Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.
Skin	Malnutrition	...	...	...	—	6	—	3
	Uncleanliness :							
	Head (Nurse inspections)	...		...	—	—	—	—
	Body	...	...	...	—	—	—	—
	Ringworm :							
	Head	...	...	...	—	—	—	—
	Body	...	...	...	—	—	—	—
	Scabies	...	...	...	—	—	—	—
	Impetigo	...	...	...	—	—	—	—
	Other Diseases (not tubercular)				—	—	—	—
Eye	Blepharitis	...	...	...	—	—	—	—
	Conjunctivitis	...	...	...	1	1	—	—
	Keratitis	...	...	...	—	—	—	—
	Corneal Ulcer	...	...	...	1	—	—	—
	Corneal Opacities	...	...	...	—	—	—	—
	Defective Vision...	...	...	...	50	26	20	3
	Squint	...	...	...	4	2	2	1
	Other conditions...	...	...	...	9	1	3	—

Defect or Disease.					Routine Inspections.		Specials.	
					Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.	Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.
Ear	{	Defective Hearing	9	6	2	1		
		Otitis Media	—	—	—	—		
		Other Ear Disease	4	1	—	—		
Nose and Throat	{	Enlarged Tonsils	4	72	—	1		
		Adenoids	23	18	4	2		
		Enlarged Tonsils and Adenoids... ..	5	3	—	1		
		Other Conditions	—	1	—	—		
Teeth	{	Defective Speech	—	—	1	—		
		Dental Disease (see Dental Report)	—	—	—	—		
Heart and Circulation	{	Heart Disease :						
		Organic... ..	—	8	—	—		
		Functional	2	6	—	—		
Lungs	{	Anaemia	43	12	9	3		
		Bronchitis	—	—	—	—		
Tuber- culosis	{	Other Non-Tubercular Diseases	—	1	—	—		
		Pulmonary :						
		Definite	—	—	—	—		
		Suspected	—	9	—	7		
		Non-Pulmonary	—	—	—	—		
		Glands	—	—	—	—		
		Spine	—	—	—	—		
		Hip	—	—	—	—		
		Other Bones and Joints	—	—	—	—		
		Skin	—	—	—	—		
Nervous System	{	Other Forms	—	—	—	—		
		Epilepsy	—	—	1	—		
		Chorea	4	1	1	2		
Deform- ities	{	Other Conditions	—	3	—	1		
		Rickets	4	1	—	—		
		Spinal Curvature	1	1	—	—		
		Other Forms	—	—	—	—		
		Other Defects or Diseases	29	32	3	17		
Number of Individual Children having defects which required Treatment or to be kept under observation					182	192	42	37

TABLE III. Numerical returns of all Exceptional Children.

			Boys.	Girls.	Total.
Blind (including partially blind), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.		Attending Public Elementary Schools ...	2	1	3
		Attending Certified Schools for the Blind	1	2	3
		Not at School ...	—	—	—
Deaf and Dumb (including partially deaf), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.		Attending Public Elementary Schools ...	1	2	3
		Attending Certified Schools for the Deaf	6	2	8
		Not at School ...	—	1	1
Mentally Deficient	Feeble-minded	Attending Public Elementary Schools ...	6	10	16
		Attending Certified Schools for Mentally Defective Children ...	5	2	7
		Notified to the Local Control Authority by Local Education Authority during the Year ...	—	—	—
		Not at School ...	—	—	—
	Imbeciles	Attending Public Elementary Schools ...	—	—	—
		Notified to the Local Control Authority during the year ...	—	1	1
		Not at School ...	—	—	—
	Idiots	Notified to the Local Control Authority during the year ...	—	—	—
		Not notified to the Local Control Authority ...	—	—	—
Epileptics		Attending Public Elementary Schools ...	9	5	14
		Attending Certified Schools for Epileptics	1	—	1
		In Institutions, other than Certified Schools	—	—	—
		Not at School ...	1	2	3

			Boys.	Girls.	Total.
Physically Defective	Pulmonary Tuberculosis	Attending Public Elementary Schools ...	38	16	54
		Attending Certified Schools for Physically Defective Children ...	2	—	2
		In Institutions other than Certified Schools	2	—	2
		Not at School ...	7	7	14
	Crippling due to Tuberculosis	Attending Public Elementary Schools ...	4	6	10
		Attending Certified Schools for Physically Defective Children ...	—	—	—
		In Institutions other than Certified Schools	—	—	—
		Not at School ...	—	—	—
	Crippling due to causes other than Tuberculosis, <i>i.e.</i> , Paralysis, Rickets, Traumatism.	Attending Public Elementary Schools ...	10	13	23
		Attending Certified Schools for Physically Defective Children ...	—	—	—
		In Institutions other than Certified Schools	1	1	2
		Not at School ...	—	1	1
	Other Physical Defectives, <i>e.g.</i> , delicate and other Children suitable for admission to Open-Air Schools ; Children suffering from severe Heart Disease.	Attending Public Elementary Schools ...	27	9	36
		Attending Open-Air Schools ...	22	21	43
		Attending Certified Schools for Physically Defective Children other than Open-Air Schools ...	—	—	—
		Not at School ...	—	—	—
Dull or Backward.		Retarded 2 years ...	74	57	131
		Retarded 3 years ...	40	23	63

TABLE IV. Treatment of Defects of Children during 1921.

A. Treatment of Minor Ailments.

Disease or Defect.	Number of Children.			
	Referred for treatment	Treated.		Total.
		Under Local Edu- cation Authority's Scheme.	Otherwise.	
<i>Skin</i>	—	—	—	—
Ringworm—Head	21	10	7	17
„ Body	21	9	11	20
Scabies	31	7	24	31
Impetigo	150	128	22	150
Minor Injuries	203	196	7	203
Other Skin Disease	110	85	20	105
<i>Ear Disease</i>	41	33	8	41
<i>Eye Disease</i> (external and other) ...	285	272	13	285
<i>Miscellaneous</i>	269	174	95	269

B. Treatment of Visual Defects.

Number of Children.									
Submitted to Refraction.									
Referred for Refrac- tion.	Under Local Edu- cation Authority's Scheme—Clinic.	By Private Practi- tioner or Hospital.	Otherwise.	Total.	For whom glasses were prescribed.	For whom glasses were provided.	Recommended for treatment other than by glasses.	Received other form of treatment.	For whom no treat- ment was considered necessary.
187	181	5	1	187	181*	160	—	—	2

* Four were not yet completed by the end of 1921.

C. Treatment of Defects of Nose and Throat.

Referred for Treatment.	Number of Children.			Received other forms of Treatment.
	Received Operative Treatment.			
	Under Local Education Authority's Scheme Clinic or Hospital.	By Private Practitioner or Hospital.	Total.	
36	28	2	30	2

D. Treatment of Dental Defects.

I—*Number of Children dealt with.*

	Age Groups.										'Specials.'	Total.
	5	6	7	8	9	10	11	12	13	14		
a. Inspected by Dentist ...	255	176	174	165	256	179	232	388	298	144	423	2690
b. Referred for Treatment ...					2267						423	2690
c. Actually Treated...					1888						423	2311
d. Re-Treated* (Result of Periodical Re-Examination)					1356						—	1356

* It is understood that cases under this head are also included under (c) above.

2.—*Particulars of the Time Given and of Operations Undertaken.*

No. of Half Days devoted to Inspection.	No. of Half Days devoted to Treatment.	Total No. of Attendances made by Children at the Clinic.	No. of Permanent Teeth.		No. of Temporary Teeth.		Total No. of Fillings.	No. of Administrations of General Anaesthetics in (4) and (6).	No. of Other Operations,	
			Extracted.	Filled.	Extracted.	Filled.			Permanent Teeth.	Temporary Teeth.
1	2	3	4	5	6	7	8	9	10	11
40	548	2405	629	1640	3486	1863	3731	—	19	209

TABLE V. Summary of treatment of defects as shown in Table IV.

	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authorities Scheme.	Otherwise.	Total.
Minor Ailments ...	1131	914	207	1121
Visual Defects ...	187	181	6	187
Defects of Nose and Throat ...	36	30	2	32
Dental Defects ...	2690	2311	—	2311
Other Defects ...	182	170	—	170
Total ...	4226	3606	215	3821

TABLE VI.—Summary relating to children medically inspected at the routine inspections during the year 1921.

(1)	The total number of children medically inspected at routine inspections*	...	...	...	...	2179
(2)	The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment)	...	...	...	...	192
(3)	The number of children in (1) suffering from :					
	Malnutrition (below average)	...	...	...	...	92
	Skin Diseases	...	...	...	...	14
	Defective Vision (including Squint)	...	...	...	...	138
	Eye Disease	...	...	...	...	29
	Defective Hearing	...	...	...	...	25
	Ear Disease	...	...	...	...	14
	Nose and Throat Diseases	...	...	...	...	316
	Enlarged Cervical Glands	...	...	...	...	620
	Defective Speech	...	...	...	...	25
	Dental Disease (see Dental Report).					
	Heart Disease—Organic	...	...	...	...	96
	Functional	...	...	...	...	25
	Anaemia	...	...	...	...	142
	Lung Disease (not Tubercular)	...	...	...	...	28
	Pulmonary { definite	...	...	...	...	—
	{ suspected	...	...	...	...	9
	Non Pulmonary	...	...	...	...	1
	Disease of Nervous System	...	...	...	...	12
	Deformities	...	...	...	...	14
	Other Defects and Diseases	...	...	...	...	60
(4)	The number of children in (1) which were referred for treatment (excluding uncleanliness, defective clothing, etc.)	...	...	...	...	182
(5)	The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	...	...	...	...	170

* “ Specials ” are not included in this Table.

REPORT
ON
Dental Inspection and
Treatment of School Children

For the Year 1921.

BY
W. BAIRD GRANDISON, L.D.S., R.C.S. EDIN.,
PUBLIC DENTAL OFFICER.

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THE DENTAL INSTITUTE,

34, PARK SIDE,

CAMBRIDGE.

December 31st, 1921

To the Chairman and Members of the Education Committee.

LADIES AND GENTLEMEN,

I have the honour to submit the Fourteenth Report of the working of the Dental Institute, covering the period from the date of my appointment on 1st March, 1921 to December 31st, 1921.

The Assistant Dental Surgeon, Mr. T. H. Roberts, L.D.S. (Livp.), was appointed and commenced duties in April, 1921, and the appointment of Senior Dental Attendant was filled by Miss Bennett, who had had considerable experience with this class of work under my predecessor, Mr. William H. Jones, M.A., L.D.S. (Eng.). The appointment of Assistant Dental Attendant was made in September, and filled by Miss Hall.

I desire to acknowledge the valuable help of my Assistant and Dental Attendants in the compilation of the Statistics necessary for this report.

I am, Ladies and Gentlemen,

Your obedient Servant,

W. BAIRD GRANDISON.

Report on the Dental Inspection & Treatment of School Children

FOR THE YEAR 1921.

I.—SCOPE OF THE SCHEME.

The Fourteenth Report on the working of the Dental Institute covers the year 1921, and relates to ten months' actual treatment, as, owing to the change of Dental Officers no Inspections were possible during January and February.

All the children of all ages are embraced within the Scheme ; furthermore, treatment has been extended to include active Conservative Treatment on the Temporary Teeth, and, although this entails a considerable increase in the amount of work to be performed, it is hoped that all children will be inspected, and, if necessary, treated during the year.

At present the routine round of Inspections has reached a point equal to five months' delay beyond the point of Annual Inspections, owing to the rearrangement of the Staff.

IA.—INSPECTIONS.

It is advisable to inspect as many children as possible during the Session, provided the Inspections are conducted in such a manner that accuracy in every detail is accomplished.

During 1921, 40 Inspection Sessions were held, 548 Treatment Sessions were held, and 75 Sessions devoted to work of an administrative and organising character.

II.—SUMMARY OF WORK DONE.

A.—Table showing the number of children examined and the number of children treated during the year 1921 ;—

Month.	No. of Children Examined	Number of Children Treated for :—			No. of Children Refusing Further Treatment
		Fillings only.	Fillings and Extractions	Extractions only.	
January** ...	—	—	—	—	—
February**...	—	—	—	—	—
March ...	50	17	27	—	2
April ...	240	85	29	69	—
May ...	274	88	100	66	—
June ...	361	67	97	63	2
July ...	324	48	81	74	1
August* ...	—	—	—	—	—
September ...	268	86	79	87	2
October ..	410	101	67	189	2
November ...	243	69	39	178	1
December ...	97	11	34	27	—
Total ...	2267	572	553	753	10

* Clinic closed for vacation.

** Clinic closed through change of Dental Officer.

It will be seen that during the year 1921 the number of children comprised in the routine examinations was 2,267. This total is 2,299 less than in the year 1920. The number of children treated during the year 1921 was 1,878 ; 379 children inspected had sound dentitions, and 10 children had not their treatment completed.

B.—Table showing the number of Operations Performed during the year 1921.

Month.	FILLINGS.			EXTRACTIONS.		Teeth Treated with Nitrate of Silver
	Amalgam.	Amalgam. and Cement.	Amalgam. with Root Canal treatment.	Temporary Teeth.	Permanent Teeth.	
January ...	—	—	—	—	—	—
February ...	—	—	—	—	—	—
March ...	107	7	3	99	12	1
April ...	237	11	9	147	73	—
May ...	392	27	27	321	57	—
June ...	264	13	14	372	163	196
July ...	335	29	23	277	73	196
August* ...	—	—	—	—	—	—
September	379	32	28	312	101	106
October ...	383	18	13	878	112	190
November	374	17	7	743	37	69
December ...	200	3	13	337	1	8
Total ...	2671	157	137	3486	629	766

*Closed during August for vacation.

One Session each week was devoted to work on Casual Cases, chiefly to relieve pain, and the Statistics resulting therefrom are included in Table B, and might, with advantage, be tabulated separately as follows :—

BB.—Table showing the number of children attending as Casual Cases, and the operations connected therewith.

Number of Casual Cases.	NUMBER OF EXTRACTIONS.		NUMBER OF FILLINGS.		No. of Teeth treated with Nitrate of Silver.
	Temporary Teeth.	Permanent Teeth.	Temporary Teeth.	Permanent Teeth.	
423	561	86	39	19	30

Two important changes in connection with the working of the Dental Clinic have taken place in 1921, namely :—

- (1) The introduction of Local Anaesthesia by Injection.
- (2) Conservative Dentistry on the Temporary Dentition.

By the introduction of Local Anaesthesia by injection, it has been possible to increase the number of extractions of Temporary Teeth and Permanent Teeth, so that, of the children examined, only 169 Temporary Teeth and 12 Permanent Teeth remain unsaveable, owing to the fact that the children concerned were either of an extraordinary nervous temperament or had refused further treatment.

The introduction of Conservative Dentistry on the Temporary Dentition is advisable, and work in this connection will do much to prevent the onset of dental caries in the Permanent Dentition. Furthermore, parents of the younger children (that is to say, children who have Temporary Teeth only) attend the Clinic in the majority of the appointments, and it is thus possible to explain the importance of Sound Dentitions to them in a manner quite impossible had we been engaged in work on the Permanent Dentition alone.

III.—SUMMARY OF ALL EXAMINATIONS.

C.—Table showing the results of an examination of the Teeth of Elementary School Children.

Age.	Number of Children Examined.	Number of Temporary Teeth			Number of Permanent Teeth		
		Sound.	Decayed Saveable	Decayed Un-saveable	Sound.	Decayed Saveable	Decayed Un-saveable
5 Years	255	4083	523	243	134	—	—
6 „	176	2209	441	464	670	19	4
7 „	174	1642	338	487	1231	73	5
8 „	165	1074	312	470	1821	114	12
9 „	256	920	264	439	3486	147	32
10 „	179	486	141	294	2852	132	29
11 „	232	373	124	251	4599	163	51
12 „	388	325	97	337	7503	390	158
13 „	298	146	40	85	6352	366	172
14 „	144	28	8	24	3186	274	92
Total	2267	11286	2288	3094	31834	1678	555

D.—Table calculated from Table C giving the average results for 100 Children in Each Year of Age.

Age.	Number of Children Examined.	Number of Temporary Teeth			Number of Permanent Teeth		
		Sound.	Decayed Saveable	Decayed Unsaveable	Sound.	Decayed Saveable	Decayed Unsaveable
5 Years	100	1600	205	95	52	—	—
6 „	100	1255	250	263	380	11	2
7 „	100	943	192	279	707	41	2
8 „	100	650	189	284	1103	69	7
9 „	100	359	103	171	1361	57	12
10 „	100	271	79	164	1593	73	10
11 „	100	160	53	108	1982	70	21
12 „	100	83	22	86	1933	102	40
13 „	100	48	13	28	2131	122	57
14 „	100	19	5	5	2212	190	63

The actual number of children examined during the year 1921, excluding Casual Cases, was 2,267. In addition, 423 children were examined and treated for the relief of pain.

The Temporary and Permanent Teeth are arranged in three Divisions, those which were sound, those which were decayed but were saveable, those which were decayed and unsaveable, and therefore required extraction.

Table C shows the results of the examination of the teeth of the children, while Table D shows the figures in the preceding Table expressed in the ratio of 100 children of each age, to enable comparison with the figures given with the reports for previous years.

The total number of teeth examined in the Routine Cases was 50,746. Of 16,668 Temporary Teeth, 67.6 per cent. were sound. This is an increase of 5.4 per cent. over the corresponding proportion for the year 1920, thus showing continued improvement in the condition of the Temporary Dentition. The percentage of Decayed Saveable Temporary Teeth has diminished from 27.9 per cent. in the year 1920, to 13.7 per cent. in the year 1921. The proportion of Unsaveable Temporary Teeth has increased from 9.8 per cent. to 18.5 per cent. Similarly the condition of the Permanent Dentition is most satisfactory, and the number of Decayed but Saveable Permanent Teeth after treatment is only 38, and the number of Decayed but Unsaveable Permanent Teeth is only 12.

*I.—Table showing the Distribution of Unsaveable Permanent Teeth.

Year.	Number of Children grouped with the Number of Unsaveable Permanent Teeth in each Mouth.							Total Number of Children with Unsaveable Per- manent Teeth.	Total Number of Unsaveable Per- manent Teeth.
	I.	II.	III.	IV.	V.	VI.	VII or More		
1921	88	77	28	44	3	4	2	280	555

* Tables indicated alphabetically may be compared with similar Tables in Previous Reports. Tables indicated numerically are usually peculiar to this Report.

E.—Table showing the Number of Children Examined before treatment and the Number and Percentage having no Decay present, as also the Number and Age of Children without Permanent Teeth emerged, and the Number and Age of Children who had lost all their Temporary Teeth.

Age.	Number of Children Examined.	No Decay including Both Dentitions.		Number of Chil- dren without Permanent Teeth	Number of Chil- dren without Temporary Teeth
		Number of Children.	Percentage		
5 Years	255	51	20%	51	—
6 „	176	20	11%	3	—
7 „	174	18	10%	1	—
8 „	165	17	10%	—	—
9 „	256	39	15%	—	—
10 „	179	27	15%	—	5
11 „	232	70	30%	—	8
12 „	388	67	17%	—	26
13 „	298	49	16%	—	18
14 „	144	21	14%	—	15
Total	2267	379	15.8%	55	72

II.—Table showing the Age and Number of Children Inspected, and the Number and Percentage having no Decay, one or two, three or four, five or six, seven or more Decayed Teeth present, both Dentitions combined, before Treatment in the year 1921.

Age.	Number of Children Examined.	Number and Percentage of Children who each had before Treatment :—									
		None Decayed.	%	One or Two Decayed	%	Three or Four Decayed.	%	Five or Six Decayed.	%	Seven or More Decayed.	%
5 Years	255	51	20%	48	18%	47	18%	43	16%	66	25%
6 „	176	20	11	25	14%	34	19	44	25	53	30
7 „	174	18	10	26	14	37	21	34	19	59	33
8 „	165	17	10	23	13	39	23	33	20	53	32
9 „	256	39	15	51	19	51	19	52	20	63	24
10 „	179	27	15	52	29	39	21	29	16	32	17
11 „	232	70	30	59	25	52	22	27	11	24	10
12 „	388	67	17	107	27	98	25	57	14	59	15
13 „	298	49	16	91	30	69	23	38	12	51	17
14 „	144	21	14	35	24	41	28	26	16	21	14
Total	2267	379	15.8	517	21.3	507	21.9	383	16.9	481	21.7

Table E shows that on examination and before treatment 379 children were found to have Sound Dentitions, either naturally or artificially.

Table II. shows how the decayed teeth found were distributed, and it will be noticed that 43.2 per cent. of the children have four or less teeth decayed. If to this percentage we add the 15.8 per cent. of children with Sound Dentitions, we find that 38.6 per cent. of all the children examined have more than four decayed teeth each; as compared with 30.1 per cent. in the year 1920, an increase of 8.5 per cent. All these figures apply to both Dentitions, and refer to the condition prior to treatment. The Temporary Dentition was responsible for the large percentage of children found with more than four teeth decayed.

F.—Table showing the number and age of children with permanent teeth, and the number and percentage having sound permanent teeth, artificially sound permanent teeth after treatment, during the year 1920, one or more unsaveable permanent teeth, and one or more decayed but saveable permanent teeth, which were not treated.

Age.	Number of Children with Permanent Teeth	Number of Children whose Permanent Teeth were						Number of Children who had Decayed Saveable Permanent Teeth but who refused treatment.	
		Sound.		Made Artificially Sound.		Unsaveable.			
			%		%		%		%
5 Years	41	38	92.7	3	7.3	—	—	—	—
6 „	140	111	77.8	13	9.2	—	—	16	11.4
7 „	172	142	82.5	28	16.2	—	—	2	1.1
8 „	165	113	68.4	39	23.6	1	.6	12	6.9
9 „	256	136	53.1	105	41.0	2	.7	13	5.0
10 „	179	117	65.3	46	25.6	1	.5	15	8.3
11 „	232	159	68.5	47	20.2	1	.4	25	10.7
12 „	388	224	57.7	148	38.1	2	.5	14	3.6
13 „	298	168	56.3	114	38.2	3	1.0	13	4.3
14 „	144	76	52.7	59	34.0	2	1.3	7	4.8
Total	2015	1284	67.5	602	25.3	12	.7	117	6.2

Table F shows that of the children examined who had Permanent Teeth, 67.5 per cent. had sound or artificially sound Permanent Teeth, a further 25.3 per cent. were made sound during the year. Thus, after treatment 92.8 per cent. of the children examined with Permanent Teeth were left with that dentition free from caries. Comparison with the same result last year shows an increase of 9.3 per cent., and represents 1,886 children.

The proportion of children with Unsaveable Permanent Teeth after treatment is almost *nil*, and represents a decrease of 8.5 per cent. as compared with the year 1920. The percentage of refusals has also decreased by 1 per cent., which is satisfactory.

Children who had refused treatment in previous years were given the opportunity to accept treatment during the year 1921, and were included in the report as New Patients.

Children who continued to refuse treatment, and New Patients who refused after three appointments had been offered, were struck off the Dental Roll, and statistics of such cases are not available for the year 1921. Fortunately the number of refusals is very small, and the ideal may be said to have been reached in this respect, as far as the Borough of Cambridge is concerned.

IV.—SUMMARY OF EXAMINATION OF NEW PATIENTS.

The number of new patients examined for the first time in the year 1921 was 620.

V.—Table showing the Number, Age and Sex of the Children Examined for the first time in the year 1921, and the Number of Sound, Decayed Saveable and Decayed Unsaveable Teeth of each Dentition that they possessed.

Age.	Number of Boys.	Temporary Teeth.			Permnanet Teeth.		
		Sound.	Decayed Saveable.	Decayed. Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
5 Years	128	2058	284	123	52	—	—
6 „	71	939	181	194	240	6	4
7 „	29	292	52	112	176	7	—
8 „	24	176	15	88	236	24	—
9 „	17	123	2	46	196	9	—
10 „	6	30	—	17	81	6	1
11 „	13	56	—	24	261	10	2
12 „	18	24	—	20	383	27	11
13 „	18	5	—	7	485	34	26
14 „	11	7	—	6	245	26	18
Total ...	335	3710	534	637	2355	149	62

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
5 Years	126	2013	235	118	76	—	—
6 „	48	588	127	128	180	4	—
7 „	13	134	14	33	80	11	—
8 „	7	46	5	21	80	4	3
9 „	18	101	4	44	225	19	—
10 „	11	56	—	26	154	17	4
11 „	17	25	2	10	327	17	8
12 „	27	36	2	14	633	57	24
13 „	15	—	—	1	373	16	16
14 „	3	—	—	—	80	4	—
Total ...	285	2999	389	395	2208	149	55

VI.—Table showing Results of an examination of 291 Children who required no treatment previously.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable.	Sound.	Decayed Saveable.	Decayed Un-saveable.
6 Years	22	282	67	38	68	—	—
7 „	27	325	47	49	188	5	3
8 „	19	197	63	48	273	5	—
9 „	15	157	29	11	224	—	—
10 „	13	59	12	11	182	7	—
11 „	13	53	19	2	203	—	—
12 „	13	35	9	8	246	—	4
13 „	13	17	5	1	267	6	7
14 „	3	—	2	—	79	1	2
Total	138	1125	253	168	1730	24	16

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable.	Sound.	Decayed Saveable.	Decayed Un-saveable.
6 Years	20	268	32	38	99	2	—
7 „	30	375	62	40	228	3	—
8 „	21	182	32	41	214	13	1
9 „	10	25	12	12	138	9	—
10 „	6	24	4	10	76	2	—
11 „	18	29	11	8	365	10	16
12 „	21	46	9	4	507	11	9
13 „	20	17	3	—	457	20	27
14 „	7	—	—	3	142	5	9
Total	153	966	165	156	2226	75	62

Of the 2,267 children inspected in the year 1921, there were 291, or 12.8 per cent., whose teeth had required no treatment previously; 138 boys and 153 girls. Treatment was mainly necessary on the Temporary Dentition, but it will be noticed that 24 teeth (Permanent)

required filling in boys, and 75 teeth (Permanent) required fillings in Girls' Dentitions.

VII.—Table showing the results of an examination of 1,356 Children who had been treated previously.

Age.	Number of Children.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
5 Years	1	12	4	2	6	—	—
6 „	15	132	34	66	83	7	—
7 „	75	516	163	253	559	47	2
8 „	94	473	197	272	1018	68	8
9 „	196	514	217	326	2703	110	32
10 „	143	317	125	230	2359	100	24
11 „	171	210	92	207	3443	126	25
12 „	309	184	77	291	5734	295	110
13 „	232	107	32	76	4760	290	110
14 „	120	21	6	15	2640	238	63
Total	1356	2486	947	1738	23305	1281	374

Table VII. indicates the necessity for a minimum of one inspection for each child annually, because it will be noticed that 1,356 children had dentitions, which were either sound at the examination of 1920, or rendered artificially sound during the year 1920, and now the same children require 1,281 teeth (Permanent) filled, and 374 teeth (Permanent) extracted, the latter having decayed beyond the limit of restoration. Hitherto conservative work on the Temporary Teeth has been confined almost entirely to the application of Nitrate of Silver ; but now that the filling of Temporary Teeth is in vogue an improvement in the statistics for 1922 may be expected, as far as the treated previously group is concerned.

VI.—SUMMARY OF HYGIENE OF THE MOUTH.

The examination of Elementary School Children reveals the fact that at least 85 per cent. of the children do not use a toothbrush, nor have they any other means of oral cleanliness. Such a state of affairs is disastrous, and the effects so far reaching, that immediate action of some kind seems to be necessary.

It has been proved in Cambridge that Conservative Dentistry alone has produced results exceeding expectations, but prevention of the onset of Dental Caries is possible, and can be attained in the majority of cases if due attention is paid to oral cleanliness and correct diet.

Suggestions as to correct diet are out of place in a report of this nature, because any scheme for feeding school children on proper lines

would lack the necessary organisation and therefore fail, but the organisation and supervision of oral cleanliness might be achieved were it possible to conduct Tooth Brush Drills in the schools, and to encourage oral cleanliness by giving special marks, etc.

Table VIII. indicates the condition of the teeth of 2,267 children after treatment in the year 1921, revised from the bottom of Table C.

Number of Children.	Temporary Teeth.			Permanent Teeth.		
	Sound.	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
2267	13149	425	169	33485	38	12

The condition indicated in the above Table need not be altered to any appreciable extent during the period of twelve months, that is to say, the time intervening between Inspections, if reasonable attention was given to correct diets, and particularly oral cleanliness, on the lines indicated above.

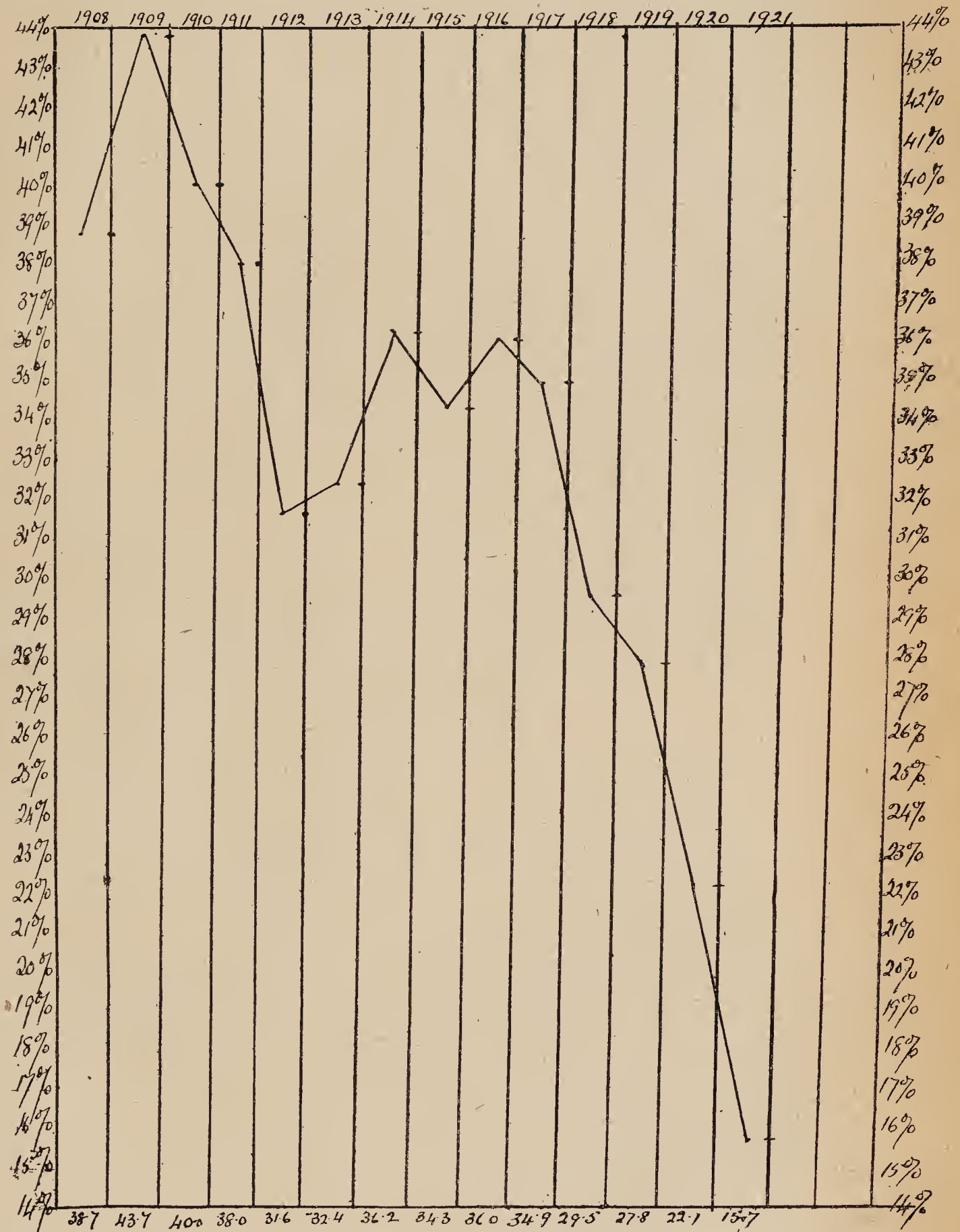
Table IX. shows the number of Temporary Teeth examined and the Percentage Sound, the Percentage Decayed Saveable, and the Percentage Decayed Unsaveable, with similar results from previous years to permit of a comparison.

Year.	Number of Temporary Teeth Inspected.	Temporary Teeth.		
		Percentage Sound.	Percentage Decayed Saveable.	Percentage Decayed Unsaveable.
1908	32341	48.1%	13.7%	38.2%
1913*	44549	59.6%	35.0%	5.4%
1914*	49218	61.8%	32.3%	5.9%
1915*	52262	63.9%	32.1%	4.0%
1916*	44637	63.6%	32.7%	3.6%
1917*	44312	62.0%	34.2%	3.6%
1918*	42705	64.5%	32.0%	3.4%
1919*	53533	65.2%	31.8%	3.0%
1920*	36228	67.0%	30.0%	2.9%
1921*	16668	95.6%	3.08%	1.2%

* After treatment during the year.

The very large increase in the percentage of Sound Temporary Teeth after treatment, and the corresponding decrease in the percentage of Decayed Saveable and Decayed Unsaveable Temporary Teeth, is a direct result of active treatment by filling the Saveable and extracting the Unsaveable Temporary Teeth.

Diagram.—Showing the percentage of Decay in the Temporary Teeth of the children aged 5 years, before treatment in each year of the Scheme of School Dental Inspection from 1908 to 1921 (both inclusive).



The Diagram indicates the percentage of Decayed Temporary Teeth to the total number of Temporary Teeth present in the 5-year-old group of children, before treatment in each year that the scheme has been in existence.

It will be observed that from the year 1909 to the year 1912 a steady fall in the Percentage of Decayed Temporary Teeth in the 5-year-old group of children took place, while from the year 1913 to the year 1916 the steady fall gave way to a period of fluctuation, mainly in an upward direction, and finally from 1917 to 1921 the downward tendency had become very marked.

Numerous views have been expressed by various authorities in explanation of the period of fluctuation ; but I am inclined to believe that the first increase in the Percentage of Decayed Temporary Teeth of the 5-year-old Group of children was due, in the first instance, to the extension of the Borough boundaries, thus enrolling large numbers of children, who had not hitherto benefited by Dental Education and treatment, and the period of fluctuation was maintained up to the year 1916, a time not only of war stress and strain, but also (and perhaps more particularly) of epidemics of Influenza.

Too much time and energy cannot be spent on work connected with the Temporary Dentition, and I would commend readers to page 15 of this report which relates the statistics in connection with the Maternity and Child Welfare Dental Scheme—a Scheme inaugurated only this year, and a Scheme which must in time produce results even greater than have been achieved in the past.